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A study was made over a four year period with 478 non-English speaking children, boys and girls, ages 5-13, of Navajo Indian background, in Ganado Public School, Arizona. Toys for the project were provided by the 72 participating toy manufacturers. Findings indicate that while the use of toys can not be considered a panacea for all teaching ills, their use in Ganado, following the regular school curriculum, shows that they provided a broadened basis for language use, brought much new information, expanded vocabulary, clarified word meaning, and made learning concrete instead of abstract in every subject studied. Toys can be considered as visual aids as well as teaching aids; they may serve as links between the two cultures, helping to lessen barriers and open doors to Navajo children.

Implications should have value and interest in areas of New York, Texas, Southern Florida, parts of Louisiana and in Maine, where English is sometimes the second language of children entering school. Toys may also be useful in working with primitive groups in foreign countries.

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THE USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN

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Study Directed and
Report Compiled and Edited
by

Irving W. Stout and Grace Langd

COLLEGE OF EDUCATION, ARIZONA STATE UNIVERSITY
AND
AMERICAN TOY INSTITUTE, INC.
1964

THE USE OF TOYS IN TEACHING ENGLISH TO NON ENGLISH SPEAKING CHILDREN

BY

Sarah Yoder
Kathleen Klassen
Eleanor Spining
Ethel Frazier
Dorothy Vann
Ann Douthitt

Teachers in Ganado Public School

Study Directed and
Report Compiled and Edited
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and

Grace Langdon
Formerly Child Development Advisor
American Toy Institute, Inc.
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FOREWORD

To children everywhere who are struggling to learn a new language and a different culture and to the teachers endeavoring to help them this book is affectionately offered.

For the toys so generously provided by manufacturers, members of The Toy Manufacturers of U.S.A. Inc., we are grateful. The many varied toys provided for the learning of a wealth of English words and their meanings which are not generally so easily available to Indian children.

To the directors of the study, Dr. Irving W. Stout, Professor of Education, Arizona State University, and Dr. Grace Langdon, child development consultant, for their invaluable guidance and assistance appreciation is offered.

To the dedicated group of teachers at Ganado Public School who faithfully carried out the research project over four years of time deep appreciation is merited and is given. Their patience, ingenuity and hard work immensely benefited our Navajo children.

When the study was proposed I gave it my hearty approval since I welcomed anything that promised enrichment for the children and professional growth for the teachers. I little realized that I would come to see toys as valuable educational material or as significant and helpful teaching tools but such is the case. I am convinced that they are both.

It is hoped that the material of the study will provide children anywhere in a situation where the learning of a new language is necessary a better life of understanding and progress and that it will put in the hands of teachers a means for helping them to such life and progress.

W. S. Carpenter
Superintendent
Ganado Public School

INTRODUCTION

This study on "The Use of Toys in Teaching English to Non-English Speaking Children," carried on at the Ganado Public School on the Navajo Indian Reservations was a richly rewarding one to us.

It brought great satisfaction to see the toys enriching the children's school living and enhancing their learning.

The enthusiasm, eagerness, untiring work, and willingness to learn shown by the teachers who participated was inspiring. Nor were the teachers alone in their interest. Their husbands often joined in the evening conferences and added many an item of information from their knowledge of the customs of the Navajos and interpreted their points of view in a way that deepened our understanding. The Superintendent of the Ganado Mission adjacent to the school grounds and the Superintendent of the Hospital were often in the group and from their wide experience with the Navajo people brought us insight that was invaluable.

The entire school staff made us feel their interest and support. The custodian who carried in innumerable boxes of toys and with the shop teacher helped unpack them and do such assembling as was necessary evinced an interest far beyond the necessary handling. The nurse never failed to speak her interest and the office staff who prepared the countless letters and lists all made us feel their support. The teachers who were not participating in the study did likewise and it was gratifying to see many who had been honestly skeptical in the beginning come to an appreciation of the usefulness of the toys not as playthings but as educational materials.

Walter Carpenter, Superintendent of the Ganado School, was a staunch supporter of the study from the beginning. As a school administrator deeply interested in the well-being of each child in the school and ready to encourage every teacher's professional growth we give him our deepest respect. He smoothed out operational details for the study. He made school facilities available to us on our visits. He gave unstintedly of time from a busy schedule to talk over plans and accomplishments. His appraisal of the findings as the study progressed were significant and challenging.

The interest of the parents was a source of great satisfaction. Their acceptance of us as friends was heart warming and the honor of visiting some in their homes was deeply appreciated. The Tribal Council knew of the study from its beginning and gave the support of their interest.

Robert W. Young, Area Tribal Operations Officer with the Bureau of Indian Affairs gave generously of his time to check statements relative to details of the Navajo language and thereby insured the accuracy of those statements. It was help that we appreciate and value. It was helpful, too, to discuss the completed report with Dr. Robert Roessel, Director of Indian Education at Arizona State University. He knew of the study in the beginning and followed its progress with interest. His comments were particularly helpful in assessing the significance of the findings and in exploring their implications in their farther reaches.

As supervisors of the study we have learned from it and we have enjoyed the learning. We value the friendships made and strengthened through it. It has been a satisfaction to see the enjoyment of the teachers as ideas unfolded to them; as ways of carrying on the study came to thought; as generalizations began to come into focus; as findings emerged with sufficient clearness to become convictions. It has been a rich experience to weave the individual reports into a composite whole. We have welcomed the unique individuality evident in each and have endeavored to keep that flavor in making the final compilation here presented.

Irving W. Stout

Grace Langdon

THE USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN

The study on THE USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN was conducted in the Ganado Public School on the Navajo Indian Reservation in northeastern Arizona and covered the school years 1959-60; 1960-61; 1961-62; 1962-63.

It was carried on cooperatively under the direction of the Graduate College of Arizona State University and the American Toy Institute Inc. which is sponsored by Toy Manufacturers of U.S.A., Inc.

Part One

General Statement

I. Why the subject was chosen.

Over a period of eleven years from 1947 to 1958 the American Toy Institute had carried on a series of studies on the use of toys in various areas hitherto unexplored or only partially explored. The general purpose of the studies was to move into relatively new areas to ascertain the usefulness of toys in the lives of children under varying conditions. All studies undertaken were with the advice of the Advisory Committee to the Institute, a group of professional persons representing fields of Education; Exceptional Children; Nursing Education; Pediatrics; and Social Work.[1] These studies included (1) Use of toys with children in pediatric hospital wards, (2) Use of toys with crippled children, (3) Use of toys with mentally retarded children, (4) Use of toys with deaf children.[2]

Always on the alert for areas which might profitably be explored the Advisory Committee suggested at its meeting in 1958 that attention be turned to a study or series of studies with normal children as the subjects as contrasted to those with specialized needs as had been the case in the other studies and that, if possible, these be carried on in a public school situation as contrasted to hospitals or centers for handicapped children.

While explorations were being made as to possibilities for such studies and locations were being considered where they might be conducted an inquiry was received from Dr. Irving W. Stout, Dean of the Graduate College of Arizona State University, asking if The American Toy Institute would be interested in sponsoring a study in cooperation with the University on use of toys in work with the Indians. Being familiar with the work of the Institute and also deeply concerned with Indian education he envisaged the possibilities of a useful study touching the children either in school, in their homes, or both. He pointed out the unfamiliarity of these children with the white man's culture and suggested the possibility that toys might serve a useful purpose in their learning of the English language. This constitutes, he pointed out, a major problem in the teaching of these children particularly at school entrance but also throughout the grades. Full cooperation of the Graduate Division of the University was offered in the event of interest on the part of the Institute.

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[1] Lawrence K. Frank, Chm., Dr. Milton Levine, Mrs. Elizabeth Wagner, Mrs. Margaret Adams, Dr. Dura Louise Cockrell, Mr. John H. Kniest.

[2] Reports of these studies are listed in the Publications list of the American Toy Institute, Inc.

This inquiry was presented in memorandum form to the Advisory Committee for consideration and counsel at their meeting in January 1959. It was the consensus that this afforded the opportunity for a study which could be expected to make a significant contribution to the solution of a problem rapidly becoming apparent in various parts of the United States because of the influx of children from other cultures into the public schools, e.g., the heavy flow of Puerto Rican children into the New York City schools.

The advice of the Committee was to accept the offer of cooperation from Arizona State University and to proceed with exploration of possible plans for a study which would be defined as A STUDY ON THE USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN.

It was recognized that this might conceivably serve as a pilot study having far reaching implications since within this country there are many bi-lingual and bi-cultural groups and further an increasing number of American children in other countries with the alternative of learning a new language or remaining a segregated group. The rapidly growing need in the world today for a common ground of cultural understanding and common experiential use of vocabulary, made the proposed study, in the opinion of the Committee, a significant one to undertake.

II. Selection of Place

In the spring of 1959 the Dean of the Graduate College of Arizona State University spent several days in conference in New York City concerning details relative to setting up the study. Selection of locale was seen as of utmost importance and was considered in light of the previously mentioned recommendation of the Advisory Committee that, if possible, the next study undertaken be conducted with non-handicapped children and in a public school situation.

Having already determined that the study should be with Indian children as presenting a large group confronted with the necessity of learning the English language it remained to make the selection from among the various reservations in Arizona on several of which arrangements could have been made for such a study.

The Navajo Reservation was selected as offering optimum study conditions. By virtue both of its location and the cultural habits of the people life on this reservation is markedly isolated affording therefore an area for work free in a high degree from distracting factors and the consequent variables often besetting studies of this type.

Preliminary talks had indicated interest on the part of the Superintendent of the Ganado Public School in having the study conducted there. An added reason in favor of the selection of this school as the locale for the study was that several of the teachers were already registered or interested in registering in the Graduate College of the University for special individual studies which carry graduate credit and are conducted under the immediate supervision of the Dean of the College.

In September 1959 the Child Development Advisor of the American Toy Institute made a trip to Arizona and with the Dean of the Graduate College visited the Reservation.[3] Conferences were held with the Superintendent of the school, with the entire teaching staff as a group, with the teachers especially interested in the study, and later with the Education Chairman of the Tribal Council who had previously indicated interest in the study. Before leaving the Reservation the final decision was made to conduct the study in the Ganado School, subject to confirming approval from the New York headquarters office of the Toy Manufacturers of U.S.A. Inc., of which the American Toy Institute was the Research Division. This was subsequently given.

As will be seen from later descriptions of the setting for the study (Part Two) the facilities offered were highly advantageous. There was ample scope for extension of the study in many directions. There was full and enthusiastic support from the superintendent. The school program was of high educational quality and met all requirements for the public schools of the State. The school plant and equipment were modern and comparable to good school plants in any community. The teaching staff met the requirements of the State of an A.B. degree for elementary school teaching. The teachers interested in participating in the study had rich backgrounds of experience in addition to their training. And finally the isolation of the area removed many complicating variables.

III. General Plan of the Study

The general plan of the study which will be described in detail in Part Three, Section IV, followed the usual overall procedure of all of the American Toy Institute studies. This was fully explained at the time of the September 1959 visit, namely that the manufacturers, members of Toy Manufacturers of U.S.A., Inc., would be notified of the proposed study and its purpose and invited to send such toys from their lines as they believed might be useful in accomplishing that purpose. Plans were discussed and defined for handling the toys when they were received as indicated in a memorandum under date of September 25, 1959.[4]

The Superintendent designated Sarah Yoder, first grade teacher already enrolled for the study, to act as general chairman of the study, arranging for handling the toys as they arrived, indexing, cataloging, and acknowledging them, making them available to the teachers, and in general coordinating their use.

It was understood that the study should be carried on within the framework of the regular school program; that such records should be kept as would show the use of the toys in the regular classroom work as it pertained to the teaching of English in whatever connection; that as part of the regular school work it would be under the general jurisdiction of the Superintendent; and that supervision of it would be exercised jointly by the Dean of the Graduate College of the University and the Child Development Advisor of the American Toy Institute.

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[3] See Appendix, Exhibit 1. Memorandum on the visit.

[4] See Appendix, Exhibit 2.

The memorandum to the toy manufacturers[5] was sent under date of October 27th, 1959 and it was planned that use of the toys should begin as soon as any were received. Announcement of the study was carried in the November 1959 issue of Toy News.

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[5] See Appendix, Exhibit 3.

Part Two

The Setting

Due to the isolation of the Navajo Indian Reservation both from a geographical and a cultural point of view little is understood by those on the outside of the way of life of these people; of the nature of their culture; of the divergence of the white man's culture from theirs; of the contribution theirs has to make to ours; of the problems raised by the impact of ours upon theirs; of the adjustments which the children must make as circumstances make necessary the amalgamation of the two in their lives. The understanding of this to some degree is essential to an appreciation of varying details of the study being reported. Further it is essential to an interpretation of the procedures which developed as the study progressed. It is equally essential to an evaluation of the findings which reach to the very roots of the immediate education of these children and carry significant implications for that of all others confronted with the impact of a language and a culture different from their own.

Because of this it becomes necessary to give such detail of the setting in which the study took place as will provide a basic understanding in the light of which accurate interpretation of both procedures and findings can be made. Beyond mere intellectual understanding there is needed the feeling of appreciation for the priceless heritage of values which bring serenity to the living of these people; for their ways of living developed over more hundreds of years than the white man's forebears have been upon this continent; for their culture from which there is much to learn for those willing to learn it. It is only as one comes upon this understanding in some measure and catches this feeling in some degree that one can fully grasp the deep significance of the place that toys have come to take in the education of these children.

1. The Reservation - Geophysical

The Navajo Indian Reservation lies in Northeastern Arizona, Northwestern New Mexico, with a slight over-spread into Utah. It covers approximately sixteen million acres, or twenty-five thousand square miles. This approximates the area covered by New Hampshire, Vermont, Connecticut and Rhode Island. The reservation is the home of the largest tribe of Indians in the United States which according to the latest figures numbers about ninety-two thousand.

Roughly the boundaries of the reservation are as follows: To the north and west the San Juan and Colorado Rivers; to the south a line parallel to and within a few miles of Highway 66; to the east an irregular line extending approximately fifty miles into New Mexico and joining the northern boundary a few miles beyond the point known as Four Corners where Arizona, New Mexico, Colorado, and Utah touch.

One catches a little of the feeling of the type of land it is from an excerpt taken from the report of one of the teachers participating in the study. She writes:

> "It is a harsh land. Cold blizzards sweep down from the mountains in winter. Hot drying winds parch the ground in summer.

> The mesas are steep and the canyons are deep. As far as eye can see the colored sands are ever changing in the light. It is a beautiful land. Colorful canyon walls of reddish brown sandstone contrast with the dome of turquoise blue sky. Twisted evergreens dot the hillsides. Bits of petrified wood are found lying about and high on the mountain tops tall pines point skyward. There is so much space that one feels free and relaxed."[6]

It is a land of great distances. As one turns off of Highway 66 there lies ahead a sweep of land as far as the eye can see. Shrubs grow along the washes and in the fall add brilliant yellow to the color of the soil. Far from being barren, there is colorful vegetation, sturdy vegetation for only such could survive the dryness, the cold, the heat. There is sage, cactus, tough grasses, juniper and pinon trees. Here and there intriguing rock formations make one long to be able to read the history written in them. Even as one speculates as to their origin, suddenly a wholly different formation appears. Over it all is color, sometimes soft color, sometimes bright. There are purples, rose, violet, always the colors that complement the soil and over all the unbelievable blue of the sky.

To the unaccustomed eye this is at first all that one sees, the vast expanse, the space that seems almost unreal. Then as eyes become more accustomed to discerning detail a movement becomes visible and a spot of color different from the others is seen and one realizes it is a herd of sheep grazing under the ever watchful eye of the shepherd, perhaps a grandmother, perhaps a boy, but all so much a part of the landscape as to be unnoticed except by intent attention. Then, off against a hillside, blending almost imperceptibly with the color of the soil, one comes to see a hogan which is the Navajo's home. Far off to another side is another and other sheep grazing, but always the impression is space, space, space.

For miles and miles one drives seeing no person except the sheep tender or an occasional horseback rider in the distance. Then one meets a pick-up truck with water drums in the back, for every drop of water must be hauled often for long distances. Quoting again from Sarah Yoder's report:[7]

> "Here every drop of water is precious. A Navajo mother digs a little hole in the damp stream bed of a canyon. Soon it fills with cool clear water and her thirsty child has a drink. A sheepherder slowly follows the sheep to a distant government well. The windmill is turning and the animals can drink. An old creaky wagon or the pick-up truck carrying empty barrels follows the deeply rutted road to the well. The driver sits serenely and views the ever-changing landscape while the barrels slowly fill with the family's weekly water supply. In a low valley, at the base of a mountain, a man-made lake has

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[6] Report by Sarah Yoder, submitted in partial fulfillment of requirements for the Master's Degree in Education, Madison College, Harrisonburg, Virginia, 1962.

[7] _Ibid_., pg. 2.

> collected the melting snows of the previous winter. People in that area are fortunate. Small irrigation ditches run in a network to their patches of corn, beans, squash and alfalfa with life-giving water."

Many are not fortunate enough to live where irrigation water is available. In low places they plant their little patches of vegetables, always with corn, and with fences to keep out the sheep and cattle for open grazing is the custom on the reservation. But it is not always dry. Often there are torrential rains, and the washes and gullies fill and overflow and roadways become a mire of mud. In the winter come the snows, heavy snows and welcome for they give the promise of grazing for the sheep. There is cold, bitter cold, and high winds that are biting and penetrating.

The Navajo occupations are typically and traditionally sheepherding, weaving, and silversmithing. Various industries are gradually coming to the reservation and with the coming of each the way of living gradually but slowly changes. Power lines have only recently come through and already changes are evident and are suggestive of more to come. This development came only at the end of the four-year study on the use of toys. During the period of the study while living conditions had been undergoing slow and gradual changes the way of life remained sufficiently untouched as to give opportunity for a clear sharp picture of the impact of the toys in the education of children who had never seen them and knew little of the culture they represented.

Paved roads have been laid only gradually on the reservation. At the close of the fiscal year 1961 there were 291 miles of bituminous surfaced highway and 360 miles of gravel surface with route 1 and 3 being pushed to completion as rapidly as possible these to become state highways.[8] For the most part children coming to school have only limited access to these surfaced roads since homes tend to lie well back from main traveled roads.

Education on the reservation is provided variously, through (1) Boarding Schools, (2) Federal Day Schools, (3) Trailer Schools, as preliminary to determining need for permanent location, (4) Reservation Dormitories, (5) Peripheral Town Dormitory Program, (6) Off Reservation Boarding Schools. All of these are operated by the Bureau of Indian Affairs. There are in addition, Mission Schools and the Reservation Public Schools.[9]

Health services for the reservation are available in scattered locations with continuous effort to increase the facilities and to encourage their use. Reports show an increase over the past few years in the number of babies born in hospitals, in the use of hospital out-patient departments, and in the number of people being reached through field medical services. However, the long distances between homes, their remoteness and isolation, the small number of centers of population on the reservation make the reaching of those who would profit by health services a slow process. Aside from the problem of distance and remoteness is the ancient custom of turning to the Medicine Man in time of need. Being in reality a spiritual leader among his people the Medicine Man's ministrations are interwoven with religious beliefs and customs and are an integral part of the culture. The idea of health care from the angle of prevention takes hold even more slowly than that of using health services as a curative measure.

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[8] The Navajo Year Book, compiled with articles by Robert W. Young, published by The Navajo Agency, Window Rock, Arizona.

[9] _Ibid_., for details of administration, operation, and enrollment of these schools.

II. The People

The Navajo people are a proud, self-respecting race with no desire to be white. They call themselves Dineh or THE PEOPLE. They live in widely scattered camps or settlements. Each settlement consists of a family group, grandparents, parents, uncles, aunts, cousins, one big family. Cousins call themselves brothers and sisters. Often children live with grandparents. Family ties have no terminating point but encircle all belonging to the group.

They carry themselves proudly and their faces bespeak an inner serenity which can come only from respect for themselves and others, and a feeling of kinship with the Spirit of the universe. They herd their sheep; they tend their gardens of corn, squash, and beans; they cut, card, spin, and weave wool into beautiful rugs; they gather herbs for dye; they melt silver into exquisite jewelry set with deep blue-green turquoise.

To the visitor it seems a life of contrasts, severity and hardship on the one hand, serenity and peace on the other. Men, women and children alike must battle drought and flood; endure the blistering sun of summer and the sub-zero temperatures of winter; combat whipping winds, driving rains, miry mud, snow piled high. Even as one thinks of the severity one meets a grandmother whose lined wrinkled face and toil worn hands show that life has been hard, yet with a serenity of expression and a quiet calm of manner that makes the living seem less rugged. All around the world is rushing frantically to achieve what seems of value. Here are people who have found that which is of value to them. They go their way in a type of living which to us seems primitive and limited but in their faces is serenity and in their manner poise and calm.

The Navajos are not indifferent to the white man's culture. Every year it takes a firmer root among The People. Pick-up trucks are rapidly replacing horse drawn wagons. Canned food is making cooking easier and improving diet. Battery radios are becoming common and with the coming of the electric power television antennae soon will rise above many a hogan. Already some are wired for lights and here and there one sees an automatic washer. All in all the way of living is peaceful and full of serenity and security for the whole family from the tiniest new member on the cradle board to the old ones who sit around the fire and tell tales of tribal lore to eager children.

Many Navajo men leave the reservation for several months a year to work on the railroad or at other paying jobs. Sometimes whole families follow the harvests of vegetables or fruits in southern Arizona, California, Colorado, or Utah. The ready cash from these excursions enable the family to buy the things they need and want. The number of young people who leave the reservation for schools beyond the high school increases yearly. Some return to work among their own people, some do not.

The traditional home is a hogan, an eight-sided log structure with rounded top plastered with mud or cement, and always facing east for religious reasons. Most hogans have only one room with a small stove in the center where the cooking is done. Some have dirt floors and mud-plastered walls. There may be beds for part of the family but sheep skins on the floor is the more common mode of sleeping. Yet this, too, is changing. Small frame houses are appearing with furniture which has been unknown to most of the children who have been part of the toy study. Hogans are often nestled back against the hills. Some are set down the side of the canyon walls. Some are out in the open but usually far back from the road.

One catches a feeling for the Navajo way of living from an excerpt from the report of one of the teachers in which she writes:[10]

> "The desert sun was hot. The thermometer reading was climbing and had already passed the 90° mark. Some friends from the East wanted to buy a Navajo rug. I was tempted to take them to the local trading post which had a good selection but decided to drive the seventeen miles of sandy dirt road to Klagetoh, where we could visit some Navajo friends, see a little of reservation life first hand, and, perhaps, buy a rug directly from the weaver.
>
> We waited until after lunch to start hoping that afternoon clouds would build up and lessen the heat. When we arrived, we found my Navajo friends at their chao - or summer shelter - where they were living. A chao might be called a Navajo patio. It is the summer home, constructed by standing up forked tree trunks, then making a roof of logs, and covering it with leafy branches. One side is left open.
>
> After the usual round of handshakes, we joined my friends on the benches provided. It was siesta time. The two younger children were asleep on their sheep skin with a light blanket thrown over them to discourage the flies. Two dogs were sprawled out and, as I glanced above me, I saw that Moosie (the cat) had preferred safety and security and was sleeping quietly among the overhead branches. The dirt floor had been swept clean. A few dishes and cooking utensils were piled neatly at one end of a crude table. As we sat talking, we were bathed in a cool refreshing breeze and could look across a beautiful view to the far-off mesas. More than an hour passed. Sometimes we talked, but much of the time we just sat - each one free to think his own thoughts.
>
> As we were returning home, one of my friends remarked: 'What a wonderful way to live. I'd love to change places.' It reminded me once again of the valuable lessons we can learn from our Navajo people.
>
> Navajos possess a quiet dignity and poise. They are soft-spoken and follow a system of etiquette that is formal and

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[10] Kathleen Klassen, Second Grade teacher.

dignified. They seem to drink deep of life. They have learned to enjoy and appreciate little things - things that count. They make the best of what they have and are content. Envy and jealousy seem to pass them by. They live close to nature and have a keen awareness of and appreciation for the beauty around them.

Time never seems to press in upon them as it does on their white brother. The sun is their clock. If it sets before a task is completed, it will return in the morning. Sometimes I wonder what they must think of us - our busyness, our endless haste, the machine-gun manner in which we rush around - we whose homes have controlled heat, electric lights, refrigerators, automatic washers and dryers, and well-stocked larders.

Perhaps, we should need to hurry if we had to go to the forest, cut down firewood, drive our wagon or pick-up five miles to the windmill for water or to the chapter house to do the family wash. But no, there is time to do it all. Most of the camps are clean and I wonder how a hogan can ever be kept as clean and orderly as the ones have been where I have visited.

Navajos possess qualities of devotion to the family that are magnificent. Family ties are strong and responsibilities are willingly accepted. Navajo mothers have never heard of Dr. Spock, but their children are reared in an atmosphere of love and are not frustrated by all the do's and don'ts our children meet early in life. Navajo clans are large and 'my brother' has a different connotation than it does in the white man's world and a much broader meaning. On various occasions, the Navajo Tribe has purchased a trading post and leased it to a Navajo as a business enterprise. For the most part, these ventures have failed because as long as there is a can of beans on the shelf and a family member is hungry, that can of beans must be shared.

Navajos have learned to get all the good out of their food. When a sheep is killed, the whole sheep is used. Nothing is wasted and I am sure we would not savor some of their delicacies.

I saw a picture last summer that I shall not soon forget. My husband and I were out on one of our regular Saturday afternoon jaunts. Our Model A will take us into places other cars cannot go. This particular day we went beyond the observable wagon trail and finally got out and began to hike. We came to the edge of a deep canyon. With field glasses in hand we were searching the opposite wall for hidden ruins when, off in a distance, the silence was broken by a sheep bell. We waited and listened as it came closer. Finally, around the bend in the canyon, a few sheep appeared followed by a little Navajo shepherd. The sheep were grazing and following a small stream along the floor of the canyon. Finally a younger shepherd appeared and then an old grandmother.

> As we watched, the older boy began to chase one of the goats and, after several criss-crossings of the stream, caught it and held it until the grandmother came. With her one pound Folger's coffee tin in hand, she squatted behind the goat and began to milk. When the can was half full she handed it to the older boy who drank his fill. She repeated the operation for the younger child. When they were finished she filled the can to the brim and walked over to sit on a big rock in the shade and slowly enjoy her own repast.
>
> Navajos are a good and gentle people whose way of life has much to commend it. Changes need to be made, but perhaps we should make haste slowly. When we consider the low incidence of heart attacks, ulcers, strokes, and mental illness among these people, we wonder how far we should go in attempting to force our way of life upon them. Perhaps we should sit at the feet of the first Americans and learn some lessons from them."

Navajos do not rush, hurry, push. Time comes and goes with little concern on their part. When the sun goes down there will come another day, and still another, and more. There is no need to hurry. "Indian time" is the term the white man uses to describe the unconcern for movements of the hands of the clock which may mean that an appointment for today does not materialize until tomorrow or that a meeting scheduled for nine o'clock begins at eleven. While it is a comfortable way to live it poses problems for the young person who leaves the reservation to work in the white man's world. He finds it hard to adjust to punching a time clock. His employer finds it difficult to understand his disregard for it. Both find it frustrating.

The Navajos are a highly spiritual people. The primary aim of their religion is to keep man in harmony with his surroundings. The Medicine Man is a spiritual leader among The People, and they turn to him for healing.[11]

The relative roles of men and women are markedly different than the white man's. Navajo women own most of the property and make the family decisions but they take second place to the man. This is often reflected in the behavior of the children at school. Girls may be busy with some project of their own at recess time when along come some boys who wish to use the equipment which the girls are using. The girls fade away. No argument. The rights of the male are respected.

Of outstanding importance in their code of living is to keep peace to please others, to keep everyone happy. This, too, is reflected in the children's behavior at school. If the choice lies between the truth of the situation and what one thinks the teacher wants said, the latter takes precedence, not because they would be untruthful but because they are living according to their code. Further details of customs which have a significant bearing on the findings of the toy study will be mentioned later.

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[11] For detailed account of the Navajo Religion see THE NAVAJO YEARBOOK, compiled with articles by Robert M. Young, published by Navajo Agency, Window Rock, Arizona.

Gradually the old order is changing, very gradually in some ways, more rapidly in others. The toys of the study have played their part in the change, a more far reaching part than may appear at the moment.

The language of the Navajos is rich and musical, far more complex and varied in its use of inflections, tonal qualities, and nuances of sound than anything known in English. A change of tone, high, low, rising, falling, distinguishes meaning as does also the nasal quality and length of vowel sounds that make up its words. It is by tonal pitch that meaning is differentiated in such expressions as, "you are," "he is," and the like. A shift in tonal pitch on a single sound or the substitution of a low tone for a high one may change the entire meaning of a sentence. There is no distinction of gender in personal pronouns; no definite articles corresponding closely to English and the sentence is structured differently than in English.

These few illustrations, which will be amplified later, serve to indicate some of the difficulties which confront a child entering school for the first time and knowing his own language but not the English which he meets there and is expected to learn to speak. Coupled with the necessity for learning a language different from his own is the further necessity for learning the meaning of many words which, even when spoken, carry no significance because they indicate objects in another culture or refer to a way of living different than the child's own. Further, the teacher, unless she has lived long with the Navajos, and unless she has some knowledge of the language, is in a position similar to that of the child. He does not know whereof she speaks. She does not know whereof he speaks. Both must learn.

III. The Ganado School

The Ganado public school was established in September 1955 as a part of the regular public school system of Arizona under Public Law 815. It serves District 19 and is one of the five large public schools located on that portion of the Navajo reservation lying within the state of Arizona. The school is located approximately ninety miles via paved road from Highway 66; fifty-six miles from Gallup, New Mexico, which is the nearest town of any size; and thirty miles from Window Rock which is the capitol of the reservation and the seat of the Tribal Council.

The school grounds lie adjacent to the Ganado Mission, a Presbyterian Mission established in 1901 and comprised of a boarding school with capacity of 175 to 200 students and a 45 bed hospital.

The community includes the Mission, the school, a trading post, post office, and a mile away lies the historic Hubbell trading post and a tribal chapter house. No official population figures can be given since there is no grouping of houses to form a community and no boundary lines thereof. Probably all who get their mail at the post office consider themselves residents though they may live at a distance of several miles.

At the time of the establishment of the school it included eight grades with nineteen teachers and 430 children. As will be seen from the following table the school more than doubled in enrollment during the four years of the study, with an increase of three grades, senior high school being added, and an increase of eighteen teachers. The increase in number of buses should be particularly noted.

TABLE I

YEAR	NUMBER OF GRADES	NUMBER OF TEACHERS	ENROLLMENT	NUMBER OF BUSES
1959-60	8	23	358	9
1960-61	8	29	569	9
1961-62	10	31	714	12
1962-63	11	41	1015	15

Table I. Showing status of Ganado Public School for the four years in which the Study on "Use of Toys in teaching English to Non-English speaking children" was in progress.

Figure I shows the bus routes operated from the Ganado School and the areas served as of 1962-63 giving some feeling for the distances traveled and the service provided in order that as many children as possible may attend school. The distance traveled by many of the children is greater than that shown by the bus route since they often walk two miles or more to reach the point where the bus picks them up. Following is a description of the living areas served by the buses:

1. SNAKE FLAT - (served by paved Highway from Ganado). So called because of its topography - area of scattered "camps" (groups of hogans and shacks) - related family groups who support themselves by sheepherding and laboring jobs - men own pick-ups in some cases. End of line is ten miles from school - children walk to the Highway to meet the bus.
2. STEAMBOAT - on paved Highway 3, which crosses Navajo Reservation - so named because of rock formation. Twenty miles from Ganado Trading Post and B.I.A.[12] Day and Boarding School - grades 1-4, 150 pupils. Scattered homes near store and along bus route. Trader's children (Anglo) and Navajo children of BIA employees come to public school as well as those along route within 1½ mile limit.

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[12] B.I.A. is abbreviation for Bureau of Indian Affairs (Federal) and is commonly used to designate any Bureau activities. Children of B.I.A. employees must attend a school other than that in which the parents are employed.

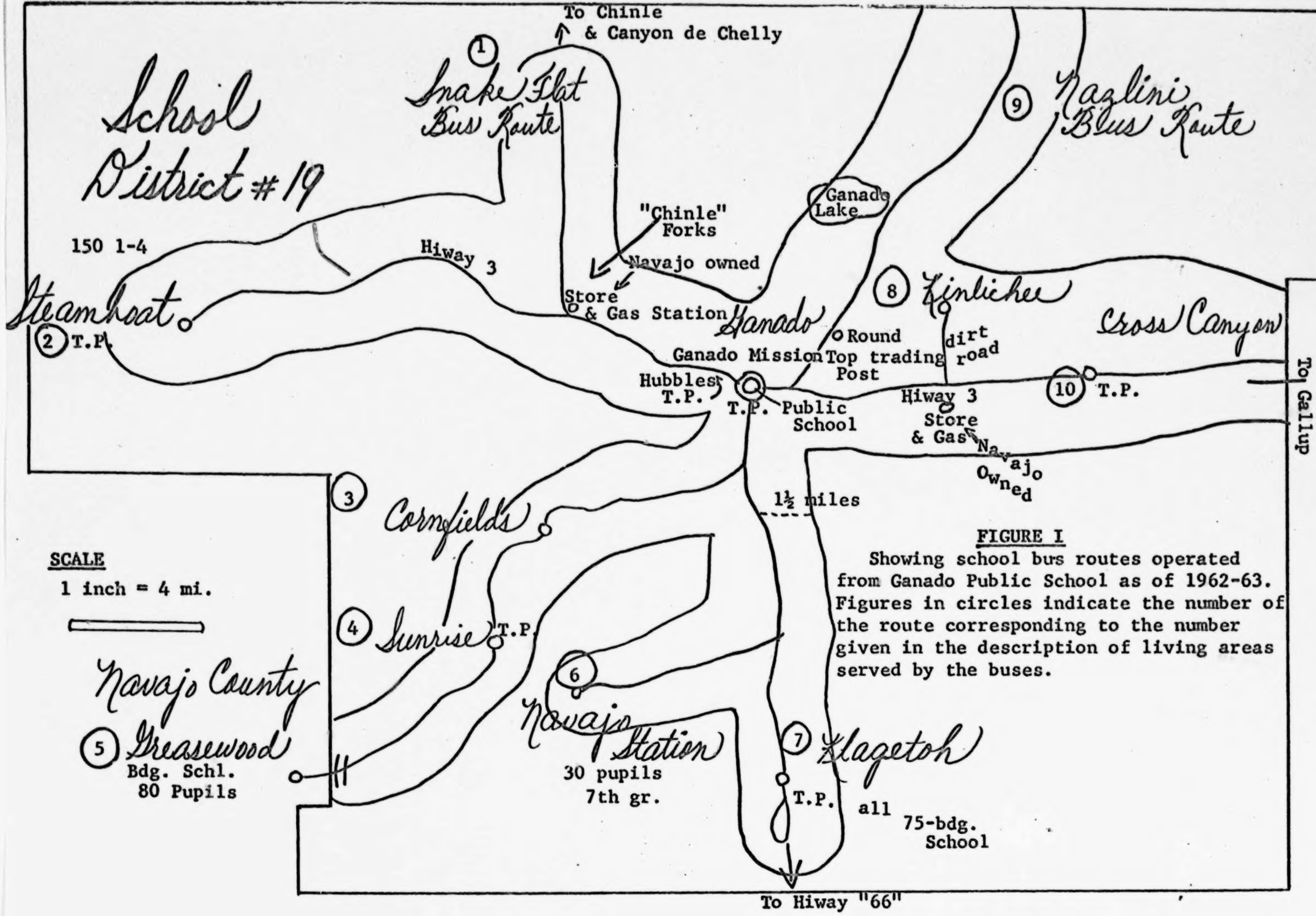
School District #19
To Chinle
& Canyon de Chelly
1
Snake Flat
Bus Route
9
Nazlini
Blus Route
"Chinle"
Forks
Navajo owned
Ganado
Lake
150 1-4
Hiway 3
Steamboat
2 T.P.
Store
& Gas Station
Ganado
8
Kinlichee
Round
Top trading
Post
dirt
road
Cross Canyon
Ganado Mission
Hubbles
T.P.
T.P.
Public
School
Hiway 3
Store
& Gas
Navajo
Owned
10 T.P.
To Gallup
3
Cornfields
1½ miles
SCALE
1 inch = 4 mi.
4
Sunrise
T.P.
6
Navajo County
5 Greasewood
Bdg. Schl.
80 Pupils
Navajo
Station
30 pupils
7th gr.
7
Klagetoh
T.P.
all
75-bdg.
School
To Hiway "66"

FIGURE I

Showing school bus routes operated from Ganado Public School as of 1962-63. Figures in circles indicate the number of the route corresponding to the number given in the description of living areas served by the buses.

3. CORNFIELDS - Dirt road from Ganado. Scattered homes. Community services (religious instruction) from Ganado Mission at building owned by Presbyterian Church.
4. SUNRISE - Trading Post - Serving Cornfields, Sunrise, Greasewood area.
5. GREASEWOOD - BIA School in Navajo County - building, 80 pupils. To be expanded.
6. NAVAJO PUMPING STATION - (El Paso Gas) Community of white and Navajos working for El Paso Gas Co.
   Public School (1 or 2 teachers - 30 pupils) Grades 1-7 serve area of ½ square mile. All others attend Ganado.
   Dirt road - well-graded and maintained.
7. KLAGETOH - (Means water under the ground) 17 miles from Ganado.
   Trading Post.
   BIA Boarding School - 75 pupils.
   Franciscan Mission (Branch of work at St. Michaels.)
   Well-maintained graded road - much traveled, but hilly country and can be difficult to travel in wet weather.
8. KINLICHEE - (Means red-house)
   Large Boarding School (BIA). Grades 1-6. In valley - good farming area.
   Pavement and dirt road.
   Ganado bus goes to top of hill.
9. NAZLINI - Large Boarding School in Valley.
   Dirt road (gets bad in wet weather)
   Ganado bus goes part way to Valley. Serves area near Ganado Lake.
   Trading Post at Nazlini.
10. CROSS CANYON - Trading Post - On Highway 3 (paved)
    Serves hilly, piñon-covered area.
    Trading center for Kinlichee and those living south of Highway 3.

GENERAL STATEMENT -

The Navajo Tribe operates chapter houses at each of the above centers (except Navajo Station) as headquarters for local tribal government. During 1962-63 for the first time clothing for Navajo school children was measured and distributed at these centers by chapter officers with help (volunteer) of public school teachers for measuring. Children of BIA school employees must attend a school other than that which employs the parents, if one is available.
Last, but not least, water must be carried for miles!

The discrepancy in the figure given in TABLE I of fifteen buses in 1962-63 and the number ten shown in FIGURE I is occasioned by the fact that the figures encircled on the map show the number of the route and on certain routes two buses are necessary to accommodate the children.

Of the forty-one teachers employed during the school year 1962-63 all held B.A. degrees which is a minimum requirement in elementary schools in the state of Arizona. Of these eight have received their M.A. degrees. Degrees were earned by the teachers in sixteen states other than Arizona, and at twenty-seven different colleges and universities. Thus there is gathered together on the teaching staff of the school persons with greatly varied training making for stimulation of thinking among the teachers and representing as broad a preparation as is likely to be found in any school system. They are a dedicated group, interested in the children, intent on bringing to them the best of the white man's culture, deeply concerned with becoming increasingly skillful in guiding their learning so that it is well rooted in the necessary understanding of words and ways unfamiliar to them. Some live on the Mission grounds with husband or wife employed there. The others live in quarters provided by the school on the school grounds. All teachers who were participants in the study were continuous throughout its duration.

The services of the school are best described in the following excerpt from one of the reports of the study:[13]

> "The Ganado Public School is a unique situation in many respects. Until recently, it was the largest school district in the United States, extending from the Utah State border on the North to Highway 66 on the South. With the development of the new school, it became apparent that it must be cut down to a size that could be handled efficiently. Also, the fact that approximately 92% of the children enrolled are Navajo Indians is significant.
>
> Because of its location and the nature of its student body, the school offers certain services not commonly associated with the public school program. Not many schools in planning their daily schedule allow for a bath period. Here, each class is assigned a thirty minute bath period and, except for a few of the students who have bathing facilities at home, all make their way to the shower room where attendants are on hand to assist. The hair is shampooed, and when necessary, a delousing treatment is given. For several years the children were bathed twice a week but, due to increased enrollment which tended to tax facilities and also to the fact that children were coming to school cleaner, it has been reduced to one shower a week except for those in the athletic program.
>
> Many classes also have a tooth brushing routine. Last year the school provided a tooth brush for each child in the first, second, and third grades and salt was secured from the kitchen as a dentifrice. In my own class it was only a couple of days until one of the boys brought his own tube of Colgate, and in true Navajo fashion, shared it with his friends. The girls followed suit and before long several tubes were circulating and a foaming, frothing good time was had by all as the children competed to see who could produce the most bubbles. Things went along fine so long as the children cooperated and reserved the toothpaste for use at tooth brushing time, but when I began to find them on the playground, during rest period, or in the reading class, savoring an inch of Colgate's on their finger as an after-dinner mint, I called a halt. Just how much toothpaste was consumed as a delectable delicacy, I'll never know.

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[13] Kathleen Klassen. Second Grade.

We have no striped pole to advertise it, but another service, which is offered as a matter of course, is hair cutting. Several of the bus drivers are adept at using electric clippers. Sometimes, one of them will appear at our classroom door and we decide who needs a haircut. At other times, they are on guard at the shower room and will pull out of line any who look too shaggy. We see the usual crew cut, mohawk, and other varieties. Some of the older boys prefer longer hair and even look as if they have tried a marcel. One of my boys came to school proud of the haircut his father had given him at home. He bowed his head so I could see his initials, J. H., as plain as could be on top of his head. For the most part, the barber shop is a man's world and girls are exempt. They treasure their long tresses and it is only when a bad case of impetigo or lice necessitates a haircut that they have to go. Occasionally, when bangs get so long that they interfere with vision, a teacher will take scissors in hand.

Another service which, although not provided by the school, is handled through the school, is the clothing program. Each fall the teachers are called upon to measure all the Navajo children. Each Navajo child is provided a complete wardrobe by the Tribe. A heavy jacket, shoes and galoshes are included as well as: Girls - two dresses, one pair jeans and blouse, three slips, three undershirts and pants and three pair socks; Boys - three pair jeans, three shirts and three pair underwear. Again in the Spring, a second allotment is made.

Any child who has perfect attendance for a month is given a free pass which is good for either a movie or an athletic event. On movie night, two or three of the school buses make an evening run and children living in those areas may come in for a movie. The buses are rotated so that every child may see a movie occasionally, provided he has a pass or twenty cents.

These movies are well attended by adult Navajos whose social life is somewhat meager and who can read pictures although they may not comprehend the English script. In fact, it often happens that all seats are sold by the time the movie is scheduled to begin.

In addition to the weekly movie, the primary children are given a special treat of an afternoon movie four times during the year. These movies are chosen by a committee and have included some of the children's classics and others that we have felt would be especially beneficial and interesting.

Most public schools have a hot lunch program, but perhaps we have a larger percentage of participation since almost every student stays at school for lunch. In many schools, the lunch would be a link between a hot breakfast in the morning and an evening meal, but for many of our pupils the noon lunch is 'it' for the day. Each child is also given a carton of milk and a vitamin capsule upon arrival at school in the morning. Most of us have no idea what constitutes the daily ration of a typical Navajo family. We have a little friend who shows up at our house quite regularly at meal time and beggingly says: 'May I eat right here? Not much foods at our house.' One evening as we were sitting down to a very simple meal, she said: 'Why for you always have many things to eat? At my house, we have just one.' One morning last summer she showed up with a brother. She asked for something to eat and I fixed each of them a bowl of cereal with milk and sugar. When I gave it to them, the brother looked at her and said, 'How about the water on it?' She looked at him disgustedly and said, 'No water - already she put the milk!' It was evident that they used water on cereal at home.

Our health program is another outstanding service of the school. Several factors are responsible for making this so. The fact that the school is located almost adjacent to Sage Memorial Hospital (Ganado Mission) and has a yearly contract with it makes possible certain services that could not be had otherwise. Both the Navajo Tribe and the U. S. Public Health Service make great contributions because of our Indian students.

The school employs Mrs. Gwendolyn Candella as nurse. She works closely with and under the direction of the doctors at Sage Memorial. Her office is well equipped and as adequate as most first aid stations. Because the Navajo families are so isolated and transportation is poor, an extensive first aid program is carried on at the school. Usually, we expect a child to stay at home when sick, but here he comes to school because he knows he will receive medical treatment. Some routine treatments are carried on by the nurse under standing orders of the doctors. More serious cases are sent directly to the hospital clinic.

Also, a very complete immunization program is conducted. Since all the Navajos are the concern of the U. S. Public Health Service, the serums are provided by Public Health and the school nurse gives the innoculations. A record is kept on each child and every year the 'shots' are brought up to date.

Similarly, an eye examination is done on each child by the nurse. She screens all those who need attention. Then an optometrist, who is under contract to the Navajo Tribe, comes to the school and checks all those recommended by the nurse. He refracts, prescribes, and fits glasses for the ones who need them. The Navajo Tribe underwrites the cost of this program.

> The Public Health Service conducts a crippled children's clinic twice a year at Chinle to which we send any crippled child or anyone with a chronic ear condition. They are examined by an orthopedic doctor or an ear specialist. If surgery is recommended and parents consent to the treatment, the child is then flown to Salt Lake, Denver or Albuquerque for the operation. A number of our students have benefited greatly from this service.
>
> Every child in school is given a complete physical examination every other year by one of the doctors from Sage Memorial Hospital who comes to the school for this purpose. Tuberculin skin tests are given periodically and the necessary X-rays are taken as a follow-up.
>
> I believe our school is unusual, too, in that it furnishes all textbooks and supplies for all the grade school children. When the high school was added, each tribal chapter was asked to donate $100 in order that the school might have a book fund of $800 with which to buy high school textbooks. These in turn are rented to the students for $1.00 a year. All student activities are subsidized by the district. The referee fees, athletic uniforms and equipment, girls' P. E. suits, band instruments and uniforms are all furnished by the district.
>
> A resumé of all these extra services, which are handled either directly or indirectly by the Ganado Public School, helps one realize that operating as a public school we do have many unusual features."

The school program featuring as it does the services indicated above in addition to the regular academic learning accounts for many of the changes taking place in the lives of these children, changes which teachers working in the school can note even though they seem slow at the time. One of those who has lived long on the reservation writes:[14]

> "Our school nurse feels that the children are more health conscious than they were when she came four years ago. Most of them do what they are told when sent home with medical instructions for the evening or the week end. In the past medications could not be sent home because parents might not follow instructions. Now some parents send notes with their children requesting medical attention. Impetigo is still prevalent but the cases are neither so numerous nor so serious.
>
> The older girls are dressing fancier and wearing their hair in the latest styles. None of them now wear squaw skirts, velveteen blouses and little Indian jewelry. They are

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[14] Eleanor Spining. Beginners.

> becoming more conscious of good grooming. For a time there was continuous trouble with the girls standing on the toilet seats in the dressing room and it was only after some weeks that it was found it was in order to see the bottom of their skirts in the mirror to see if their slips were showing. They now have a full length mirror.
>
> In the fall of 1962-63 the ninth, tenth, and eleventh grades had their first evening dance at which time both boys and girls danced. At previous attempts only a few girls felt free to dance.
>
> Times change for the Navajos just as they change for us. Their change is more dramatic because it involves a new language and a new culture. One of the big changes is that education is becoming very important to them. They are seeing it as the key that opens the door to social and economic opportunities. Those of us who have been long on the reservation realize that we are seeing the end of one era and the beginning of another."

Such is the setting in which the toy study took place.

Part Three

The Structure of the Study

I. The Participants

During the four years of the study six different teachers actively and consistently participated for varying durations of time as indicated in Table 2 below:

Teacher	1959-60	1960-61	1961-62	1962-63
Sarah Yoder	X	X	X	X
Dorothy Vann	X	X	X	
Eleanor Spining	X	X		
Ethel Frazier		X	X	
Kathleen Klassen			X	X
Ann Douthitt			X	X

Table 2. Showing the teachers who participated in the study and the duration in terms of school years of their participation.

Examination of this table shows that one participated for the four years; one for three years; four for two years. This does not mean that those who did not begin active participation at the time the study was initiated were not using the toys but only that they had not formally joined in the study. As a matter of fact it was the use of the toys which interested them in studying that use in a more systematic way.

The one teacher who was active in the study for the first three years and not during 1962-63 was moved at that time from her position as first grade teacher to that of school librarian so of necessity could no longer participate. The one who participated during the first two years but not during the last two, had heavy home duties in addition to school work which made carrying on the study seem unwise. However, she continued to use the toys and to join in conferences concerning the study.

Table 3 shows the grade level of each of the participants by years as follows:

Teacher	1959-60	1960-61	1961-62	1962-63
Yoder	IC	Beginners	Beginners	Beginners
Vann	Beginners	Beginners	Beginners	
Spining	Beginners	Beginners		
Frazier		4th	4th	
Klassen			2nd	2nd
Douthitt			4th	4th

Table 3. Showing the grade level taught by the teachers participating in the study during each of the years of participation.

In reading the above table it should be understood that these children enter the first grade, there being no kindergarten in the school, since kindergartens are not supported by public funds in the State of Arizona. Thus the designation of "Beginner" indicates that this is the first year of the child's school attendance and that this group (in first grade) is his first experience with school. In the school there are several first grades each year with the children grouped according to ability based largely on facility in the use of the English language.

At the time that the study began in 1959-60, there were four first grades and as can be seen from Table 3 only three were included in the study. As will also be noted, no systematic study was done above the fourth grade, although toys were used in some degree by some teacher at each grade level, even in the high school. There the large mail box sent during the last year of the study was set up in the high school corridor and used for school mailings. It furnished the impetus for students' taking turns selling stamps thereby gaining needed practical experience in computation and making change. It is natural that the concentration of interest in the study should have been in the first grade since it is here that the children must learn English as the basis for their school work. Gradually, however, as the study progressed, it became increasingly evident that toys could be of great help in the vast amount of work in English which remains to be done in succeeding grades. As this became more and more apparent, teachers in later grades indicated their interest in joining the study.

It is indicative of the interest of the participants that even when the possibilities of graduate credit from the University for this type of study had been exhausted, participation continued. Sarah Yoder, who participated throughout the four years completed her work for her Master's degree in the summer of 1962 but continued with the study throughout 1962-63. During the second year she transferred her credits from Arizona State University to an eastern college in order to complete requirements during summer sessions at the same time being nearer her home in central Pennsylvania. Immediately upon transfer she secured approval for submitting her portion of the study as a Master's thesis. This was approved and in July 1962 it was accepted, the degree granted, and the thesis copyrighted in order to protect the material. In the interests of the final account of the study appearing as a composite whole, she gave permission for any part of the thesis to be quoted and withheld it from circulation until the study should be finished and the present report completed and published.

The length of service in the Ganado School of the participating teachers as of 1962-63, the year of the completion of the study was as follows: Yoder, five years; Vann, eight years; Spining, five years; Frazier, four years; Klassen, eight years; and Douthitt, five years. All of these had had previous teaching experience before coming to the Ganado School. In addition, Eleanor Spining is the wife of the Medical Director of the Hospital at the Ganado Mission and with him came to the reservation more than a quarter of a century ago. There they have lived among The People and ministered to them and there they have raised their family. Dorothy Vann is the wife of a trader and with her husband operates a trading post some ten miles from the school. To understand the full significance of this, one must know the part the trading post plays in the lives of those on the reservation. Here they come in time of need to trade whatever they may have to offer for the food and clothing they need. Here they come with their troubles for the trader is their friend. Often it is the address of the trading post which they give for their mail and here they come to pick it up, to have it read to them, to get help in replying to it. It must be remembered that members of the family leave the reservation and with the close family ties that exist there must be lines of communication between them. There are many trading posts and each has its group of those to whom it is the place they turn for whatever the need may be. Ethel Frazier and Kathleen Klassen are wives of employees at the Mission and are active in carrying on the program of the Mission.

It is difficult for one who has not seen and felt the dedication of these teachers and their closeness to the lives of The People to realize the significance of this to the toy study. It provides the background of understanding which adds validity to the findings set forth in the report and to the observations and interpretations thereof which gave rise to the findings.

It is common practice for one teacher and another to invite into her home a group of the children in her room for a session of cookie making; or to listen to her records or even for an over-night slumber party. In the spring of 1961-62, after long and careful planning, one of the fourth grade teachers of the study, Ann Douthitt, took her entire roomful to Disneyland. What an experience for these children, many of whom had never been off the reservation! It meant securing permission of parents, preparing the children for the trip; arranging transportation; planning for the two-day stay in the city with the children assigned to the homes of Boy Scouts and Girl Scouts; the actual visit to Disneyland itself with all of its details arranged in advance; the getting of the children back to their own hogans on the day of the return. It is such interest, understanding, dedication that the teachers brought to the study.

II. The Children

During the four years of the study a total of 478 children were included distributed as follows:

Beginners	246	(In reality first grade since there are no kindergartens.)
First Grade	30	
Second Grade	65	
Fourth Grade	137	

Table 4 shows the number of children by year and by teacher.

Teacher	1959-60	1960-61	1961-62	1962-63	Total
Yoder	30	43	34	25	132
Vann	26	33	29		88
Spining	25	31			56
Frazier		33	36		69
Klassen			32	33	65
Douthitt			36	32	68
Totals	81	140	167	90	478

Table 4. Showing the number of children included in the study by year and by teacher.

The ages of the children as of September 1st of the year indicated are shown below by year and by teacher.

Teacher		1959-60	1960-61	1961-62	1962-63
Yoder	5 yrs	4	4	6	1
	6 yrs	7	23	23	13
1C and	7 yrs	12	11	4	4
Beginners	8 yrs	4	5	1	6
	9 yrs	3	0		1
Vann	5 yrs	7	4	9	
	6 yrs	16	26	19	
Beginners	7 yrs	3	3	1	
Spining	5 yrs	1	7		
	6 yrs	20	16		
Beginners	7 yrs	3	5		
	8 yrs	1	2		
	9 yrs		1		
Frazier	8 yrs			4	7
	9 yrs			7	9
Fourth	10 yrs			15	10
	11 yrs			6	7
	12 yrs			0	2
	13 yrs			1	1
Klassen	7 yrs			8	5
	8 yrs			17	12
Second	9 yrs			6	11
	10 yrs			1	3
	11 yrs				2
Douthitt	8 yrs				2
	9 yrs			3	3
Fourth	10 yrs			13	14
	11 yrs			6	10
	12 yrs			11	3
	13 yrs			3	

Table 5. Showing ages of the children included in the study as of September 1st of the year indicated and grouped according to teacher.

Examination of Table 5 will indicate that the children included in the study ranged in age from five years to thirteen years with a four to six year range in age in the various grades. The distribution by ages is as follows:

5 year olds	43
6 year olds	163
7 year olds	59
8 year olds	62
9 year olds	43
10 year olds	56
11 year olds	31
12 year olds	16
13 year olds	5
Total	478

In studying Table 5 it may occasion some surprise to find children of seven, eight, and nine years in the beginners groups. It must be remembered that many live in remote and almost inaccessible areas. This makes any overall enforcement of the school attendance laws difficult of administration. Many parents, however, who do live in far flung areas make a great effort to place the children in school, but for little ones to walk the distances which may be necessary to reach the school buses, often means that school entrance is delayed. Also, children are often kept at home to tend the sheep, thus making them late in school entrance.

No breakdown is given in the above tables to indicate the number of non-Navajo children included in the total. Sometimes there were none in a given room. Sometimes there were from one to three, occasionally more but seldom. These are the children of the school staff, of employees at the Mission, and of those working in one capacity or another with the various branches of the Bureau of Indian Affairs. Their presence in the room, as would be expected, had a bearing on the use of the toys because of their greater familiarity with them and of the culture they represent. However, any effect was in the direction of making the toys more useful and the learning of English perhaps slightly easier. The difficulties of the language to be learned still remained so that as far as this study was concerned the presence of these children was in such small number that any effect they might have had seemed negligible as having any bearing on the findings.

The figures given in the tables presented in this section serve only to provide the answers to certain questions which may arise in the minds of readers of this report. They do not tell of the children themselves as one sees them pouring off the buses, rushing into the school building, going to their rooms, beginning busily today where they left off yesterday, going to the playhouse corner, to the shelf where the farm is set up, to open the store which has been built in a far corner, to get out the jackstones for the game which is the delight of the girls, and then as the school signal sounds going to their seats and then to their reading groups, their number-work groups, their music. Since the toy study has been going on, toys have become an integral part of all of this school living.

It is often a surprise to one who visits the school for the first time to find the children active, eager, dynamic, and withal, giving every evidence of happiness and enjoyment. There is laughter, but it is often with the eyes, and joy is frequently shown by facial expression rather than active body movement. Perhaps this is the reason that there has grown up the thought of Navajo children as being solemn, with little expression of emotion. Reserved they are, yes, until they become acquainted. Shy, yes, but often the Navajo custom of not looking directly at the one speaking or being spoken to is mistaken for shyness. They are friendly children, but it is often unrecognized because of the reserve of manner. After a few visits and the newness and strangeness of the visitor has worn off, the reserve which one mistook for solemnity, lessens, and there are smiles and laughter and friendly glances are directed one's way. It is only that one must wait to be accepted, that one must know the signs of friendliness, that one must give forth friendliness so genuinely that it is felt, for these are sensitive children, sensitive in feeling though no word is spoken and no sign given.

The first days of school are not as happy as later ones, however, for the child comes from the world he has known to one which is strange and new. One of the teachers of beginners writes:[15]

> "Many of the children scream and cry when left with the teacher by parents who come to enroll them and leave. Most of them have to be bathed and since they have had little experience, if any, with running water, they are terrified, especially by the flush toilets. Teachers often must undertake toilet training for the first month or so. The experience of being in a big building with many white people around is a big adjustment. They often run away at recess and this is a serious matter when a child lives twenty-five or thirty miles away. Unless carefully tagged with their name and bus number they may get on the wrong bus, get off at some strange place with the bus driver all unaware that it is not the proper spot. The amazing thing is how quickly they make their adjustment to this strange world of the school."

Since space does not permit furnishing details of the personnel of each of the group of children included in the study during the four years, a description is given of one group as taught during one year by each of the participants in the study. While there was variation from year to year, these descriptions are sufficiently typical to give an understanding of the children using the toys and to afford the information needed for giving significance to the findings as later related. These are taken verbatim from the reports of the teachers which were submitted annually for each year of participation in the study.

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[15] From progress report of Dorothy Vann, June 1959. Beginners

> Yoder . . . 1959-60. First Grade C. (Low first) "First grade in this case means the second year of school for most of the children. The first year in grade one is spent in learning the English language. A little reading is taught during the second year. There were 27 enrolled during this year, falling roughly into three groups, - beginners, first graders, and repeaters. Three of the group knew English well enough that they did not need the full year in language preparation. Four were repeaters, so this was really their third year of school. The other 21 had had first grade language the previous year so were ready for the state adopted first grade course. Two withdrew during the year. Of the others, 13 rated very low on the pre-primer test; 10 rated low; 2 rated low average; 2 rated high average. On the first grade, level one, test ratings were as follows: very low 8; low 10; low average 5; high average 2; high 2. Of the group, 25 were promoted to second grade at the end of the year."

Following is a summary of the test scores made by the children included in the toy study in the above room for the years 1959-60; 1960-61; 1961-62. Scores for 1962-63 were not available at the time this report was compiled.

Name of Test*	Year	Level Taught	High	Low	Class Med.	Ratings
Before We Read	1960-61	Beginners	67	15	53	Low
Before We Read	1961-62	Beginners	69	48	54	Low
Pre-Primers	1959-60	Low First	64	39	51	Low
Pre-Primers	1960-61	Beginners	62	37	53	Low
Pre-Primers	1961-62	Beginners	60	31	48.9	Very low
Fun with Dick and Jane-1stGr.Level 1	1959-60	Low First				Low

*Published by Scott Foresman Co.
National Average 62 (Total Test Based on 70)

Ratings

68-70	Very High
65-67	High
63-64	High Ave.
62	Mid Ave.
57-61	Low Ave.
51-56	Low
0-50	Very Low

Vann . . . 1959-60. Beginners. "Twenty-six children were enrolled when the study began, all Navajo, but four dropped before the end of the year. Eight of the children did not reach the age of six until December. One who was withdrawn was only four years old. Two were eight and were repeaters. One of them was physically and mentally handicapped with thyroid trouble. One other was crippled in both legs and had mastoid trouble. Three children were seven and the rest of the class six. Because of repeated absence due to illness and inclement weather or poor home conditions eight were retained at the end of the year. Eleven were recommended for high first grade and three who had entered while still five for low first. All children made excellent progress in English and all could express their wants without trouble in English. Seven homes were one or two room cabins. Two of the children lived in Government school modern quarters and one in a trailer. The others lived in the traditional mud and log hogans with dirt floor. All of these face the East and are without windows."

Spining . . . 1959-60. Beginners. "The group consisted of twenty-eight boys and girls about equally divided as to sex. They ranged in age from almost five to nine years of age, although the greatest number lay within the prescribed age for first grade entrance. The homes varied from the primitive hogan located a few miles from the school bus route to the modern home of a government boarding school which employed the mother of one little girl. Some of the parents had rudimentary schooling. Some had gone as far as high school. The parents of five or six could speak some English and could write an intelligible note to the teacher. In a number of cases only one parent could speak English or had schooling; sometimes it was the mother, sometimes the father. The families were large and in many cases the welfare check would provide the only cash income. For many of the children the half-pint of milk served in the morning and the hot noon meal provided the major part of the daily nourishment. Clothes provided by the Navajo tribe at the early part of the school year were all some of the children had during the year, and care depended upon the interest, ingenuity, and facilities of the mother. One could only marvel at how well they managed despite limited water and crowded living conditions."

Klassen . . . 1961-62. Second Grade. "The entire second grade enrollment for the school consisted during this year of approximately one hundred children divided into three classes according to ability, of which this was the middle group. It was composed of 32 children, 22 boys and 10 girls, ranging in age from seven to ten years. With the exception of two boys the children were all full-blooded Navajos. The majority went home every night to a one room hogan or small house equipped with only the bare essentials. Conditions are crowded for inquiry shows that on the average there are

> four or five children to the family. Water is scarce and must be hauled from government wells spotted throughout the reservation. Three or four of the fathers have better jobs that pay two to three hundred per month. Most of the fathers are sheep herders. Many of the families draw a welfare check. Although most of the parents can understand and speak some English, only Navajo is spoken in the home. Most of the children enjoy a freedom unknown to Anglo children, for permissive discipline is the accepted form. Few of the children have been more than sixty miles from home and many not that far."

> Frazier . . . 1961-62. Fourth Grade. "This group is designated as a high group. On the S.R.A. achievement test given in the fall, one child's score in grade level was 7.1; one was 6.4; eight ranged from 5.0 to 5.6; fourteen from 4.0 to 4.8; five from 3.6 to 3.9; and one was 2.9. Their backgrounds are as varied as possible. There are eight Anglo children in the group. These eight have all had the advantage of some travel from the Reservation, one having been to Boston, one to Chicago, another to Pennsylvania. The parents of two are on the Mission staff; those of two others are traders; two are the children of teachers; and one's are houseparents at a BIA boarding school. One negro boy's mother is a teacher in a BIA boarding school. Of the Navajo children, parents of six are employed as cooks, maintenance, and dormitory personnel at BIA schools. Of the group, seventeen live in hogans. Except for three of these, the conditions of the homes are fair to poor."

> Douthitt . . . 1962-63. Fourth Grade. "There are four fourth grades with the children grouped according to ability. This group of thirty pupils is designated as 4B. Two of the girls live at Steamboat Boarding School where parents are employed. Four live at Kinlichee Boarding school for the same reason, and one at Klagetoh Boarding School. Two live on the Mission campus. The others live in hogans, tents, and cabins. This year, a few of the hogans got electricity for the first time. These children in 4B are able to do work done by 4A at a slower pace and with more teacher guidance."

To complete so far as possible the picture of the children included in the study, there follows the report of one teacher's home visits during one school year.[16]

> "L.A., Greasewood, October 25, 1962. L's mother works as an attendant in the Greasewood Boarding School. Since the government ruling is, 'Children of employees cannot attend Bureau of Indian Affairs schools unless there is no other school available,' L. rides the bus thirty miles one way over dirt roads every day.

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[16] Report of home visits, Sarah Yoder, Beginners, 1962-63.

His family has comfortable housing in a furnished government apartment. They enjoy the comforts and conveniences of a bathroom, electricity, running water, etc.

C. B., Ganado, October 11, 1962. It is always a pleasure to visit at the B's as they are a warm and friendly family. The mud covered hogan is heated by a wood burning stove made from an old oil drum. Everything looks neat and orderly although it is very crowded. One single bed, a mattress and springs on the floor and a pile of sheepskins make up the bedroom furniture.

As I left, C. came running to the car, beaming as he handed me a small gift - a miniature hand woven rug. I was especially pleased as Navajos do not often give gifts. I shall always treasure this little token of friendship.

E.B., Klagetoh, January 18, 1963. This child's father works in the maintenance department of the Klagetoh B.I.A. (Bureau of Indian Affairs) boarding school. The family, eight boys and one girl, live in a small, two bedroom apartment. An older girl has gone to California and is trained as a dental technician.

Mrs. B. speaks excellent English and her husband, fair. Both of them seemed very glad that we (another teacher and I) had come. Although Mr. B. has a good steady job and they are living on a somewhat higher standard than many Navajos, they are not the 'status seeker' type. They seem content with the basic needs of life - food, clothing and shelter, and show the happiness that comes from contentment.

R.B., Klagetoh, November 14, 1962. It was almost dark by the time I reached R's home. The oil lamp threw weird shadows about the room and gave it an atmosphere of another time and age.

The hogan of large pine logs, covered with firmly packed mud, is typical of the homes of many Navajos. It stood in a grove of twisted piñon trees, serene, quiet and secure. Less than one hundred miles away dirty noisy towns bustle with twentieth century life; but here stands a family haven and the family are not at all concerned with that sort of activity. Here among the fragrant piñons there is quiet relaxation and an atmosphere of eternal peace and harmony.

Inside, the hogan was also typical - the wood burning stove in the center, a small table where R's sister was washing dishes, and the beds around the walls. I sat down on one of the beds and we chatted in the gathering night. Both parents speak good English. They remembered my visit of several years earlier, when R's brother was one of my pupils. These homes do not have much but it is enough.

R.C., Ganado, November 17, 1962. Last year R. attended school for about six weeks and then quit because of the heavy snows. Her home is near Burnsides station and she had quite a distance to walk to school. She is now living with her grandparents near the school. Her grandmother promised that she would attend all year and she has kept her promise.

R's mother came home with the water while I was there. The grandmother said, 'She's uneducated.' The grandmother spoke good English but R's mother said nothing. Before leaving, I asked if I might take a picture. They all posed beside the house.

R.C., Kinlichee, December 19, 1962. A neat tidy hogan with not a thing out of place. The hard packed dirt was raked clean all around the outside. Not a piece of trash, not even one tin can, was in sight anywhere. R's parents were both at home and seemed very pleased that I had come. Conversation was rather limited however. They spoke no English and my Navajo consists of about a dozen words.

B.D., Ganado, February 5, 1962. On the top of a hill, north of Hubbells Trading Post, nestled among the piñon trees, stands a very attractive cabin. The late afternoon sun came streaming in the shining windows. B's mother sat there patiently spinning a huge heap of clean wool on a hand spindle. A rug frame stood in the corner.

B's home has one of the new sinks that the tribe has introduced. A platform is built outside the house. The barrel of water stands on the platform. A sink with a drain is just inside the wall. Water flows by gravity when the faucet is turned on. A drain carries the water away. However, in very cold weather, the pipes freeze and the system does not work.

B's mother spoke very little English, but she was friendly and good-natured. Everything seemed so peaceful and serene in that one-roomed cabin.

F.D., Nazlini, October 11, 1962. F. attended school very irregularly last year. Consequently she was not promoted. Her record is not much better this year. The whole family, with the exception of the grandmother, had gone off to pick Piñon nuts. Grandma was sitting on the floor shelling Indian corn. It made a beautiful scene there in the darkened hogan, with the only light coming from the doorway. The light caught the satin of her skirt and set it shimmering. The fresh corn, with its deep purples, blues, yellows, and reds, gave the otherwise bare room an air of festive plenty. I told F's sister to ask Grandma if she would sell some corn. The old lady chuckled and laid out thirty ears.

M.E., Snakeflats, November 6, 1962. M's home looks as if it came right out of Wilder's book, 'Little House on the Prairie.'

It is a one roomed cabin made of neatly fitted logs chinked with cement. The unpainted boards on the floor had been scrubbed white. They reminded me of the old fashioned houses in the Pennsylvania Dutch country. Open shelves were well stocked with canned goods. A fire burned in the range. In the center of the oil cloth covered table stood a kerosene lamp. Two sofas, a large arm chair, and a double bed completed the furnishings. Clean handmade curtains hung at the windows. M's mother spoke no English but she seemed to understand quite well. She and the four children posed outside of the house for a picture.

E.M.G., Nazlini, December 14, 1962. E.M.'s mother was all dressed up in her best satin skirt, velvet blouse, and turquoise jewelry. The whole family came outside and we stood around and talked for awhile. I did not go inside the hogan. Perhaps they felt it was not good enough to show to the teacher or perhaps they preferred being outside on such a nice day. It was nice there with the smell of piñon trees all around and the soft whisper of the wind in the branches. A generous supply of bedding (sheepskins) was airing on the poles between trees.

C.H., Kinlichee, October 9, 1962. C. lives in a furnished government apartment at the Kinlichee boarding school. She lives with her grandmother, parents, and little two year old brother. Her parents are both high school graduates and are taking some night courses in Gallup. They were disappointed that C. was placed in a pre-primary room instead of a regular first grade. Her father asked what they could do to help her. I suggested reading stories to her and she is now taking library books home at night. The parents have not taught their children to speak Navajo. This has caused some difficulty as she cannot communicate with the other children.

V.A.J., Ganado, October 12, 1962. A neat tar papered cabin furnished with one small table, one bed, one stove and two dressers is V's home. V. is the oldest of five children. Her father is currently working on construction of the new hospital in Ganado.

G.J., Klagetoh, October 16, 1962. Two years ago, when I first visited the J's, they lived in a mud covered log hogan with no windows. They have just now moved into their new home which Mr. J. built by himself. The new hogan has a green tar paper roof, two windows, and a wooden floor. The furnishings consist of: a wood-burning stove placed in the center of the room, one single bed, one small homemade table with two benches, an orange crate with a basin on top, some built-in shelves covered with a lace curtain. The J's do not talk much English but they seemed to appreciate the visit.

A.K., Steamboat, November 6, 1962. A's father works at the Steamboat Boarding School. The family, seven boys and two girls, live in a furnished two-bedroom government apartment. A's mother takes great pride in her family and is eager for her children to do well in school. She had a partially finished rug in a loom.

H.R., Ganado, February 17, 1962. H. is the second oldest in the family. His mother was holding the new baby, wrapped firmly in the cradle board. She spoke no English. The cabin was neat and clean even though the floor was of hard packed earth. A stove sent out warmth as the fire crackled and burned.

M.T., Ganado, December 14, 1962. M's grandmother was unusually talkative and outgoing. Her mother said very little. Grandma asked about M's school work and observed, 'I think it is time M. is learning her ABC's; she is drawing too many pictures at school.'

E.A.T., Ganado, October 25, 1962. E.A. comes from a very large family. Her mother spoke no English. Grandmother is bedfast and almost blind. Yet all her family has that happy-go-lucky, 'Isn't life wonderful' attitude. They are not worried about keeping up with the Joneses or seeking a higher status.

D.S., Snakeflats, December 5, 1962. D's brother J. is in fourth grade. Two teachers went together to visit this family. However, on the way J. noted that his father's pick-up was parked by the community house. We stopped and found they had come over to Ganado Mission to use the public laundry. Mr. S. came over to the car to talk. He speaks very good English. He told me that they would be home the following night but added almost apologetically, 'Our house isn't very good.' However, the following evening, the parents again were not at home when we arrived. Apparently Mr. S. did not want to be rude and tell us we could not visit, yet he preferred not to have us come.

L.T., Ganado, January 15, 1962. L. comes to school always looking neat and clean. He understands quite a lot of English, but his mother seemed to understand none at all. We stood outside the cabin and spoke only a few words.

D.W., Cornfields, October 25, 1962. D's family was staying at Grandfather's camp during piñon season. The dirt covered hogan is several miles off the bus route over a very rough wagon trail that winds among the trees. Both D's mother and aunt spoke good English and we sat there in the cozy hogan and talked for quite awhile. When I was leaving they gave me a large sack of piñon nuts and a ripe melon. It is not often that Navajos give gifts to strangers. They usually share among the family clan. So, I felt honored."

Visiting the homes of the children in one's group is no easy task as evidenced by the comments of the teacher who made the above reported visits. She says:

> "To attempt to visit twenty-six pupils scattered over a thirty mile radius is no small task. If it rains, the roads become an almost impassible mass of mud. Many of the children live a mile or more off the 'main road.' Main roads are graded or graveled. One paved road runs east and west through the Ganado district. All other roads are subject to change with the weather, amount of sand drifting across them, etc.
>
> Yet the time and effort put into home visits is very rewarding. To get the feel of what it means just for these children to come to school, is in itself an eye opening experience. Early in the morning they must get up and dress by kerosene lamp light. The only indoor bathroom facilities may be a basin on a crude wash stand. Through sun and wind, dust and mud, snow and rain, they walk to meet the bus, then ride ten, twenty, or thirty miles over bumpy roads.
>
> In order to find the children's homes, it was necessary to have them ride along and show the way. A paper was sent home for the parents to sign, giving their permission for the child to stay after school and ride home in the teacher's car. This is always a great occasion when a child has a turn to ride in 'chidii yazzie' (car little). The teacher drives a Volkswagon, and the children often say, 'Funny car.' No matter how many times the road forked, the children could always tell which way to go. Their sense of direction and keen observance of the landscape never ceases to amaze the modernized white person. They notice every little hill and curve, tree and sand dune. They can show you the way but they cannot tell you the way.
>
> Visiting a Navajo family is somewhat different from visiting an American family. If they want the visitor to come inside they go into the house when they see the car arriving. They sit and wait with the door closed and the visitor is expected to enter. He does not need to knock. If for some reason they prefer not to have the visitor come in, they come outside. Proper protocol calls for hand shakes (not vigorous ones) all around, even to the tiniest toddler. It is not necessary to make any conversation for the first several minutes. In fact, too much talking or too soon plunging into the reason for the visit is considered rude.
>
> Like most parents, Navajo parents like to talk about their children. This is a sure topic of conversation as most families are large. Small families are a disappointment to the parents. Navajos show their pleasure more often through shining eyes than by the spoken word. Not often do they express appreciation for a teacher's visit but they make one feel it just the same."

The children's difficulties with English are many. Brief mention has previously been made of some of the differences in the Navajo and the English language which occasion some of these difficulties. These will be discussed in more detail later. It is only, though, as one listens to the children in their everyday school living, that the technicalities of the differences in the two languages come alive and take on significance in one's understanding of what it means to a little child to be confronted with words he can hear but cannot comprehend; with words and expressions that stand for ideas inherent in a culture of which he knows little or nothing; with words that do not come easily to his tongue because of tonal quality, pitch and inflection wholly unfamiliar. The wonder is that they learn so quickly. By the middle of the first year of school, most of the beginners have learned to associate the words the teacher speaks, the gestures she uses, her facial expressions, with the school routines sufficiently to know that they are supposed to come to their own rooms and not play in the halls; to understand that there are times when they work at their desks and times when they gather as a group to work with strange new words; to know what is expected when mid-morning milk appears; to know that there are times to go to the nurse's office; to know how to get to and from the cafeteria and the procedure to follow when there. These are beginnings and important ones, but an infinitesimal part of all the learnings involved in coming to an easy use of a new language and an understanding of the culture it represents.

A second grade teacher speaks in her report of a first grade child's rendition of a well-known nursery rhyme. She writes:

> "I have a special little Navajo friend in the first grade and every afternoon she stops by my classroom as she leaves to report on the day's activities, and usually with black eyes glowing she re-enacts some important event. One day as she came bounding into my room she repeated:
>
> 'Hey, little devil,
> The cat and the fiddle,
> The cow the moon jump over,
> The little dog laugh the chalkboard under,
> and the spoon and dish is run away.'
>
> And another time:
>
> 'Mary had a little man, little man, little man,
> Mary had a little man,
> His teef (teeth) is snow as white.'"

The teacher comments:

> "I wondered how many times a day my own class heard such things as the 'the chalkboard under'. I became more sympathetic when I realized how often the children attempt to force English into the Navajo language pattern.
>
> A first grader with news to tell put it this way: 'Father-me-go-fair-truck.' He had the words to convey the idea, but not yet the skill to manage a sentence.

> Knife, fork, spoon, plate, cup, saucer, napkin, are words hard to manage until a child has learned the utensil which each one stands for."

It is from such beginnings that the learning progresses. As one of the teachers wrote, "An alert teacher is continually searching for better methods, new tools, new techniques, to make her teaching more effective, and always wishing for something to bridge the gap from one culture to another, from one language to another." It was the knowledge of this search which led the Dean of the Graduate College at Arizona State University to suggest the possibility that toys might furnish part of the answer. It was the understanding of the need for a bridge from one culture to another that led the Superintendent of Schools to give his enthusiastic and hearty approval to the study which would explore the possibilities that might lie in toys put to this use. It was the great interest of the teachers in finding ways of helping the children in their learnings which made them welcome the opportunity to bring toys into the experiences of the children and to use them in their teaching. It was the combined interest of all these which made the study possible, together with the vision of the Advisory Committee of the American Toy Institute in pointing out the significance of such a study, and the interest of those manufacturers who so generously provided the toys.

III. The Materials and the Handling Thereof.

Toys were the materials for the study. These were furnished by interested members of Toy Manufacturers of U.S.A., Inc. As mentioned previously, a memorandum was sent in October of 1959 to all members of the Association (See Appendix, Exhibit 3). In this memorandum the idea of the study and its purpose was presented and those interested were invited to participate by sending toys.

No attempt was made to select the specific toys to be sent. This had been the general policy in all previous studies of the American Toy Institute. It had heretofore resulted in a much wider and more varied assortment than would have been the case if pre-selection had been made since it left the manufacturers free to provide from their lines whatever toys they felt might be useful in meeting the general purpose of a given study. Obviously no one person or group of people in attempting to make a selection could hope to encompass in any list the variety of toys that a large number of manufacturers might select. Since the purpose of the study was to ascertain the usefulness of toys in teaching English to non-English speaking children it was believed that the wider the variety of toys with which to work the better. Thus one would not be circumscribed in the beginning with limitations of materials. As the study progressed, the wisdom of abiding by the usual policy became more and more evident. Toys were sent which it was not known were on the market. Many were sent which it might have seemed would not contribute to the purpose of the study, yet they did.

However the manufacturers were not left wholly without guidance as to the types of toys which it was believed would be useful. In the first interview with the Superintendent and entire teaching staff, inquiry was made as to the types of toys in general which they felt would be useful in their teaching. Following are the broad categories which they indicated and which were included in the memorandum to the manufacturers:

1. Any toy that will give an idea of our ways of home living, of cooking,

eating, sleeping, cleaning, laundering, furnishing our homes.

2. Anything that will give understanding of community living and community services, e.g., village sets, farm sets, street accessories, traffic games, etc. Villages are few. There is no electricity in the hogans, no telephones.

3. Anything that will help to build concepts of communication, means of transportation, construction of buildings. Few have had experience with boats or airplanes.

4. Anything that will help to build concepts of health-care and sanitation. All water has to be hauled often twenty miles or more.

5. Toys that will give ideas of geography, history, science, etc. to broaden the concept of the world lying beyond the Reservation.

6. Musical toys, games of all kinds, anything for creative hand skills, anything likely to stimulate conversation through social activity.

The toys which were sent by the manufacturers and included in the study are indicated in Appendix, Exhibit 4, classified by types. The manufacturers sending toys at some time during the four years of the study are indicated in Appendix, Exhibit 5.

Some manufacturers responded immediately. Others joined in the study later. Some sent toys at several different times during the study. Some asked that they be notified of any special type of toy needed or of need for replacements. Several sent their catalogs asking that selection be made of what it was thought would be useful. The response was ready and generous with a total of seventy-two manufacturers participating.

Careful plans were made before the first shipment arrived for the mechanics of handling the toys so that all would be properly identified. As each shipment arrived it was assigned a number before the box was opened. As each toy was taken out it was stamped with the number assigned to the given manufacturer followed by a letter indicating the specific toy. For example, the first shipment received was from Highlander Sales Co., Inc. This company was given the number 1 and toys included in the shipment were identified as 1a, 1b, 1c, etc. In any instance where more than twenty-six toys were sent the identification read 1aa, 1bb, etc.

The name of the manufacturer was then entered on an individual index sheet with space for the name of the manufacturer; address; identifying number assigned; date shipment was received; toys received with identifying number and letter; and date of acknowledgment. These index sheets were filed alphabetically by company names and the information from them transferred at intervals to a master index sheet. Letters of acknowledgment were sent immediately following receipt of a shipment with carbon copies sent to the directors of the study, i.e., the Dean of the Graduate College, Arizona State University and the Child Development Advisor of the American Toy Institute.

This statement of procedure followed in handling the toys in no way adequately pictures the time, thought, and actual physical work which went into it.

The shop teacher, older boys and custodian opened the boxes and they assembled the unassembled toys such as wagons, doll furniture, hobby horse, etc. Teachers from all grades lent a hand in unpacking, marking, and indexing. This was of importance from two standpoints; (1) that of such systematic care of the toys as would reduce to a minimum or wholly preclude any confusion in identification of manufacturer, and (2) provision for acquaintanceship of the teachers with the toys. This latter point was of no small importance. There were many toys which the teachers had never seen before and many others with which they had had no first hand experience even though they may have seen them on store counters. Opportunity for experimentation with them as they unpacked them (call it play if you wish) helped to disclose possibilities of their use.

As soon as the toys had been indexed they were placed in a central closet for storage. A check-out system was set up for their distribution as needed. Sheets were provided on which teachers could sign their names, list the toys taken, the check-out date and date of return. No time limit was set on the use of toys in a single classroom. The teachers were told to use as many as they needed and for as long a period of time as they felt they were useful.

With the arrival of shipment after shipment, storage soon became an acute problem. The Superintendent promptly set aside one side of a wide corridor for storage cupboards and arranged for these to be built by the older boys as part of their shop work and under the supervision of the shop teacher. These were locked and the key kept in the school office where any teacher could get it as needed. The toys were available to all teachers whether or not they were participating in the study, and several who did not join the study at any time, used them consistently.

In addition to the acknowledgments signed and sent by the Superintendent, the children in two of the first grades themselves wrote to the manufacturers of the toys used in that grade during that year. Samples of these letters follow:

Dear Sir:
Thank you for the guns.
We play cowboy sometimes.
We cannot hurt with it.
We play safe.
Your friend,

Dear Sir:
Thank you for the wagon and scooter.
We go faster and faster.
Your friend,

Dear Sir:
Thank you for the telephone
We like to talk.
It is fun.
The telephone is still working.
Your friend,

Dear Sir:
Thank you for the puppets
We had a program with them.
We make them talk.
Your friend,

Dear Sir:
Thank you for the books.
We take the books home.
We read to our little brothers and sisters.
We teach them to talk English.
We go to school and we can read.
Your friend,

Letters such as these continued to be written until all toys used in these rooms had been acknowledged by the children using them. When one realizes that these were children who a few months before could speak no English or very little, one can assess to some measure the accomplishment. When one realizes further how little incentive there is for these children to write, one can catch some small feeling for the motivation furnished by the toys. The simple letters as they stand, represent many days of work in the school rooms in talking together about the toys, about the thoughtfulness of the manufacturers who sent them, about their appreciation of them, and then about how to put that appreciation into words. All of this even before learning the form in which a letter should be written. Nor is this all. There was the placing of the letter in the envelopes, the sealing, the interest as the teacher addressed them, the stamping, the actual mailing. These may seem simple everyday learnings. They are for children who see letters written and mailed day after day. Even for them, though, the writing of a letter is a learning of vast importance. For the first grade Navajo children, it was an event.

As the study progressed and new possibilities for the use of the toys became apparent, one teacher, and another of those participating in the study, would ask if such and such a type of toy was available. Request would be made to the New York office of the American Toy Institute for them and they were always forthcoming. For example, in a fourth grade, the study of THE FARM indicated in the Course of Study, presented genuine problems in bringing to these children an understanding of farm machinery which they had never seen. Inquiry from the teacher about the availability of toys that would clarify the children's concepts of these resulted in a manufacturer's sending scaled models of some dozen different machines. This type of generous response added both depth and breadth to the study and was greatly appreciated.

At the close of the second year of the study (1960), the teachers then participating sent a joint letter to all manufacturers who had sent toys to date, expressing their appreciation. (See Appendix, Exhibit 6.)

IV. General Procedure.

From the beginning, it was understood that the toys would be used in each classroom as an integral part of the teaching in that room. Since each teacher teaches in her own individual way, this meant that the toys would be used differently by each teacher, though essentially for the same general purposes. The specific purposes naturally varied with each group of children and with the specific needs of that group. It should be understood that this being a public school operating under the same provisions and requirements as all public schools in Arizona, there was prescribed work which it was expected would be covered in each grade. The textbooks used in each grade corresponded with those used in similar schools throughout the State.

Being always mindful of the fact that this was essentially a pilot study, it was felt that making the toys an integral part of the individual teacher's work to be used in the manner that befitted her way of teaching and in conjunction with what she would normally be teaching would give greater significance to the findings as being applicable to other situations than if some special procedure were set up to be uniformly followed. Further, it was felt that the procedures which evolved, would of themselves have suggestive significance for teachers in other situations. Therefore, instead of defining specific procedures in detail in a preconceived plan, it was understood that these would be allowed to evolve as the study progressed and that the teachers would be analytical both of procedure and results evident in their teaching and in the children's learning.

This, of course, necessitated careful observations and the recording of such observations as evidence from which conclusions could be drawn and as documentation for those conclusions. No set forms were provided for these observations since it was felt that the devising of such forms by the individual teachers was a natural phase of her study of the use of the toys with her individual group and a natural part of her individual way of teaching.

Consideration was given to the possibility of using control groups in each situation since there were several groups at each grade level in the school. However, certain difficulties presented themselves in that the different groupings were largely on ability basis making the necessary matching difficult of accomplishment. It was further felt that no particular advantage would accrue from the use of control groups since it was not the intention to handle findings from a quantitative but rather from a qualitative standpoint. Therefore control groups were not used.

The decision to present findings on other than a statistical basis was occasioned by the nature of the study and the purposes for which it was undertaken. Those purposes, in their various details, were all included in the overall purpose to discover the usefulness of toys in teaching English to non-English speaking children. The measure then of the usefulness of the toys lay in (1) the facility and ease of usage which different children developed in speaking, writing, and accomplishing the required school work and (2) in the effectiveness, from the standpoint of the teachers, of their use as a teaching tool.

The children's facility in the use of English and the usefulness of the toys as a means of teaching, making such accomplishment possible, it is believed is best revealed, not by figures or statistical tables, but by the considered observations and judgments of teachers who had taught without the toys made available through the study and now with them. The findings, therefore, are presented in these terms with substantiating evidence in running comment rather than in statistical tables. The specific procedures followed, likewise, are given in the form of descriptive comment rather than being reduced to bare statement and outline form. It is believed that such treatment of both procedures and findings will thus have their maximum usefulness to the reader who is searching for help in guiding children in their learning of a second language accompanied by need for acquaintanceship with a culture other than their own as represented by the language being learned.

It must be remembered that the teachers participating in this study were not only well trained and experienced but that they were searching for ways of making their teaching more effective in the lives of these children who were coming to them for the learning of a new language and culture as well as of the basic school subject matter and skills. Rather than circumscribing their search in any way it was the purpose rather to provide maximum freedom for discovery and the maximum latitude for interpretation of that which was discovered. It is only when there is supreme confidence in the willingness and ability of those participating in such a study to think, to evaluate, to delve deeply into meanings, to analyze, to reconsider, to weigh, to learn, that the freedom to evolve procedures and to present findings from an interpretative point of view can be given. There was confidence such as this on the part of those directing the study.

The general procedure was unstructured to allow for individual initiative but it was not unorganized nor unguided. Throughout the duration of the study the Dean of the Graduate College, Arizona State University and the Child Development Consultant, The American Toy Institute kept in close touch with the participating teachers and with the Superintendent of Schools. Visits covering two to four days were made to the Reservation twice yearly. Time then was spent in the classrooms and in individual and group conferences with the teachers. It was understood from the beginning, that each teacher participating, would submit a report yearly and interim progress reports. These were the basis for the conference discussions together with such questions raised as the teachers wished considered. Points in procedure were discussed, tentative findings considered, next steps suggested. Throughout its duration the study was a cooperative learning experience for the teachers and for those directing it. As it progressed, insights deepened and understandings broadened in a way that could never have been possible with a preconceived prescribed plan. The very procedure of allowing procedures to evolve was a learning experience in itself.

In the period between visits to the Reservation there was frequent correspondence and help was given on questions raised by the participating teachers. Frequently the Superintendent of Schools and one or another of the teachers were on the University campus and at such times conferences were held to hear of progress and to give help on questions which had arisen.

Throughout the period of the study the Dean of the Graduate College kept in touch with the officials of the Tribal Council who had given their approval of the study at the time of its initiation and who had maintained a deep interest in it. Further he was in contact with officials of the Bureau of Indian Affairs who likewise maintained an interest in the study.

Not only did each teacher submit a yearly report, but at the close of her period of participation, a final summarizing report was prepared. These are the basis of this composite report. At one time it was thought that the final work of the teachers would be to draw their reports together in one, but in the interest of preserving the individuality of the reports intact, it was decided that they should be submitted separately with the directors of the study doing the compiling and editing.

When final reports were submitted, tentative compiling and editing was done and a preliminary draft of the final composite report prepared. This was ready at the time of the last visit to the Reservation late in the spring of

1963 and was the basis for two evenings of discussion with the entire group of participating teachers and the Superintendent, in addition to two small group conferences. Findings as drawn together from the individual reports were discussed by the group, modified, and agreed upon.

Further, the overall procedure of the study was discussed with a step-by-step evaluation, not only of the results, but of the means by which these were obtained, with the Dean pointing out that the effectiveness of a study is measurable not only in the stated findings but also in the methodology learned in the process, in the satisfaction derived from the learnings, and in the recognition of the ability to think creatively, as was demonstrated throughout this study. It was pointed out also that the value of such a study lies not wholly in the end results of the moment, but extends into teaching and living for time to come. Thus the procedure becomes of equal importance with the results stated in terms of findings.

Part Four

Individual Procedures

In considering the procedures followed in using the toys and in assessing that usefulness, it must always be borne in mind that the basic purpose of the study was TO DISCOVER THE USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN.

To fully understand the procedures and to properly appraise the findings, it is essential to consider the factors involved in the learning of English by children who come to school speaking the Navajo language as their native tongue and whose living is in the culture of which that language is the expression.

I. Some Language Characteristics Pertinent to the Teaching

Mention has been made incidentally in preceding sections of some of the factors involved in learning English as a second language by Navajo children. Reference has been made to situations thereby created with which the teachers must work as they fulfill their two-fold purpose of teaching prescribed subject matter and the language necessary to make it meaningful.

For the purpose of easy reference in considering the procedures and findings of the study, a fuller statement of language characteristics which the teachers must understand and with which they must work is provided here. This statement is a composite of those made by the teachers participating in the study.[17]

The learning of English by Navajo children necessitates not only the learning of new words but the formation of new concepts together with the vocabulary expressing them. For example, when the child meets such words as friend, buddy, pal, he must not only learn the words but learn too that they represent relationships beyond those of family and extended family to which he is accustomed.

It must be remembered that the Navajo child comes to school with no experience such as Anglo children have with children's literature. He has been brought up on the folklore and mythology of his people transmitted by word of mouth. He has not been exposed to picture books, nor is he familiar with the sight of written or printed words. The recording of spoken Navajo language has been accomplished only recently.

The Navajo child, as he begins to learn English, must learn to recognize words by configuration, by association, and by rote. He must learn to recognize vowel and consonant sounds, to recognize combinations of these, to reproduce them accurately. He must learn to divide words into syllables and indicate accent. While he may learn to pronounce words readily, this is no sure indication that he has a meaningful vocabulary. The English speaking child hearing words commonly used, has attached meaning to them and brings that understanding to his school work.

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[17] Based on "A Sketch of the Navajo Language" by Robert W. Young in THE NAVAJO YEAR BOOK, published by The Navajo Agency, Window Rock, Arizona, and read and approved by him.

Even the speaking of the English words is difficult for the Navajo child. In English, a child is accustomed to hearing certain consonant and vowel sounds in certain combinations. So is the Navajo child, but the ones he hears are different than in English. He is used to hearing ts as an initial sound but never as a word final. The simple word BITS violates a well established speech habit for him. The counterpart of the Navajo kw is the English qu as in quill. The k sound however, is always used at the beginning of a word, never in final word position. The word SIX is a combination unknown in Navajo. The word SIXTH is practically impossible for a Navajo child to say. WASPS in a reading lesson proves to be an almost insurmountable hurdle.

Teachers of Navajo children are constantly aware of the difficulty which the children encounter in enunciating the endings of words. They read the printed word and omit the ending. It is common to have a sentence such as "I saw many dogs" read as "I saw many dog." When the child does this, he is following a speech habit to which he is accustomed. "Many" to him means more than one, so the plural for dog is superfluous. Another pertinent factor in this is that in Navajo, plurality is often indicated by verb forms rather than noun forms.

The first and second syllables of words are often pronounced by the children with a fadeout of the last syllable. This is explainable by the fact that the Navajo child does not naturally sustain the column of air and the open glottis necessary to produce the English speech sounds when they are found in the unfamiliar position at the end of a word.

SHIMAH is easy for the Navajo child to say because the m is where, to him, it belongs. SAM, however, comes out without the final m. In order to say the m in SAM, lips must be closed then opened again. If the Navajo child gives voice to the m sound, it stays inside because although he may close his lips to channel the sound through his nose, he does not open his lips during the process of articulation as we do in English as native speakers to produce word final m. Opening the lips to permit the sound to come out, must be taught.

In Navajo, any consonant may be found at the beginning of a word, but only the following occur in final position: d, g, s, sh, z, zh, n, l (the glottal stop) t, (s and l) and h, plus the glottal stop and surd l. In contrast, a great variety of consonental clusters are found in the final position in English, as in six, eighth, scientist, and desks.

In English the suffix written as "ed" has the sound of t when it immediately follows any voiceless consonant except t. It has the sound of d when it follows a vowel sound or a voiced consonant except d. It has the sound of ed or id if it follows the consonant t or d.

A further point of confusion is with the vowel sounds. We say that in English we have long and short vowel sounds. According to Young, what we commonly refer to as short vowel sounds are in fact simple vowel sounds, while the sounds we commonly describe as long are in fact diphthongs composed of the simple vowels in combination with the semi-vowels y and w. They are neither long nor short in the sense that duration distinguishes meaning. The confusing thing for the child is that in Navajo the length of a vowel may determine the meaning of a word. It may be written with a double letter when long and indicates a prolonged pronunciation. BAH means "for him." BAAH means "bread." BITSE means "his daughter." BITSEE means "his hair."

There are in Navajo four basic vowels, a, e, i, o, pronounced as in "father", "let", "sit", and "note", but modified by length, nasalization, and fixed tone in Navajo words.

Knowing that the Navajo child has real trouble in identifying, reproducing, and hearing certain English speech sounds, teachers are not surprised to hear such common mispronunciations as the following:

but for bud
do for to
guess for guests
mudder for mother
big for pig
lamb for lamp
breat for bread
den for them
roat for road
nest for next
tin or teen for think

The following sentences which came from one spelling lesson where the children were to use their spelling words in sentences illustrate some of the difficulties:

I saw many log.
My house is made of log.
We study of (by) the oil lamb (lamp).
The bird has two leg.
I ran around when I was play.

Another set of words brought forth these inaccuracies when used in sentences:

I go alone (along) the road.
I see my sister along time.
A boy side let me along. (A boy said, "Let me alone.")
The twelve inch was along.
I walk along time ago.
When I go along I play some boys.

A negatively phrased question always gets a "yes" answer especially if followed by is it? eig. "It is not cold, is it?" Answer; Yes, if reflecting agreement--i.e. Yes, (you are right) it is not cold. If it is cold the answer is no. This is required by the Navajo particle ya' which implies agreement. doo deesk' aaz da ya', (It is not cold, is it.) Answer, 'ouu' (Yes, it is not.)

Navajo does not distinguish gender either in its nouns or in its pronouns. A single term BIH may represent "he", "she", or "it," or "they" as the contest may require. There are two sets of pronoun subject forms, one of which occurs as a prefix within the verb and the other of which occurs as an independent form.

Navajo is essentially a monosyllabic language, one in which monosyllabic elements are combined in characteristic manners to form the words of the language. Some of the monosyllables occur only as sound forms, i.e. they exist, like English ing, only as parts of word complexes, others like butter and cup in buttercup may also exist as free or independent word forms.

A teacher must always be on the alert to isolate the child's particular type of difficulty. Of basic importance is the realization that language is both a means of communication and a way of communication and that each child brings with him to school speech habits already established.

II. Procedures as Indicated by Individual Teachers.

Specific procedures by which each teacher carried on her study of the use of toys were an integral part of her day to day teaching. It must be remembered that it was the considered intention that the toys should be used in the regular classroom work in whatever way fitted into what was being taught. The accounts of procedures are therefore accounts of the ways of teaching with toys as an aid in accomplishing the purposes of the teaching. There has been no effort to separate procedures of the study from methods of teaching. It would be impossible to do so without losing much of the significance of the findings that emerged.

Throughout the accounts which follow, there will be found appraisal of the usefulness of the toys in different areas and for different purposes. Sometimes these are in terms of the function served by the toys, sometimes in terms of the techniques of their use. These findings will be presented in more generalized summary form in a later section (Part V). Here they are left in context as an integral part of each teacher's description of her use of the toys in her classroom.

Presentation of procedures in this way, it is believed, will make them of maximum usefulness to those who wish a clear picture of the functional use of the toys; to those who may desire to use them in their own teaching; to those who have an interest in seeing how both procedures and findings emerge in a study conducted without preconceived structured procedures being defined.

The account of each teacher's procedure is a verbatim quote from her report.

Eleanor Spining. Beginners.

> "Having returned to teaching after an interval of rearing a family with my doctor-husband on the Navajo Reservation, the idea of using toys as a help in teaching English to Navajo children was at once strongly attractive to me. Knowing something of the life and culture of the Navajo people with whom we have lived and worked the past twenty-five years, and observing the rapid changes which education in all its aspects is bringing about, I could readily see the practical value of such a study as this and was eager to pursue it as a specific help in the main problem at hand, namely teaching English to Navajo beginners.
>
> During the first year of the study, the work was largely exploratory and experimental. Receiving, handling, and acquainting ourselves and the children with the toys and their care and use was laborious but interesting. The mere presence of the toys was exciting to the children. Many of them live in extreme poverty according to our standards and this new abundance was bewildering. This posed problems for

the teacher in making arrangements for the best place for and use of the toys.

As part of my preparation for the year's work, I listed the vocabulary and reading skills in the Reading Readiness material I would be using with the children. Then I selected the toys which would be helpful in introducing new and unfamiliar words from this material. I would let the children play with the toy so that they would be familiar with it, often speaking the name of the toy and commenting in very simple words about what one could do with it. Then when he saw the toy in a picture in the book, it was something he knew about. Words that were unfamiliar could be easily recalled with the toy as reminder.

The unit on toys in our readers (Scott-Foresman, BEFORE WE READ) was made meaningful to the children through the toys which they could handle and play with. We talked about the toys, about how it runs, what one can do with it. I brought in words denoting rates of speed, comparison in size, color, form. Each toy in the unit was matched in counterpart with a real toy and new words came out of each new experience.

With an eye ahead to the unit in the reader on family activities, I set up a playhouse center. It was the setting for many of the acts pictured in the reader with the children not only learning the pronunciation of words unfamiliar to them, but also the meaning of the words. The playhouse center was the scene of much cooperative play which is as important to these children as learning words.

It would be impossible to describe all the ways in which the toys were used, for they became a part of our whole classroom living. I found myself reaching for one any time that a word needed clarifying or an experience needed meaning which it did not have. I used them to stimulate the children to make things with their hands; to encourage them in their play together which is always a problem with these children. I had them always at hand and changed them to fit the work we were expected to cover. They became a part of the classroom and I thought of them as school material as much as the books or any other equipment.

Sometimes I would have new toys out and sometimes I would wait and bring them out before the children had seen them or had a chance to play with them and we would look at them and talk about them.

I kept a record of the toys we used though the reading books really would serve as the index to the list since I correlated them with the reading material. I jotted down notes of how different children responded to them, of the words that gave the most difficulty and then we would go back to the toys and the words would come out of the play with them and the talking about them.

I kept notes especially of the different ways in general in which I used the toys, that is the special purpose for which I used them. These purposes fall into the following six groups:

1. To help the children look on school as a happy experience. Every teacher of beginning children knows the importance of the setting on that first day of school when the child leaves the familiar home and authority, be it mother, grandmother, or older sister whom he trusts implicitly and is transported in a bus full of older children to a strange building full of strange people. Add to this the additional strangeness to the Navajo child of unfamiliar furniture, toilet facilities, easy access to running water, windows, unfamiliar food in new surroundings, immense playground with many children and adults. Is it any wonder that some little ones come crying and tearful, pulling back, and ready to run away at the first opportunity?

Some come quietly with fear and uncertainty in their eyes and no one knows what ideas in their heads. It is for the teacher to win the confidence and to provide something to do at the start which will ease the pangs of loneliness and break the ice. Car and motor toys had a strong appeal for most of the boys and since there were always more boys than toys of this type, the need for sharing was constantly apparent and required much give and take, quite often in a very literal way. The language of size was all these children knew at first and a little boy readily released his right to play to someone bigger than he.

Every child in the class, though, found in one toy or another, some satisfaction during those first days of adjustment and the eagerness with which they would arrive and go straight to the favorite toy or play center, and the reluctance with which some of them would get ready for departure at bus time at the end of the day was a daily reminder to them that school was a happy place to look forward to. This is of great importance to the learning of all children, but perhaps peculiarly so for the Navajo child. It is not only that learning comes more easily when there is ready acceptance of it but with the permissiveness of the home discipline of the Navajo child, his acceptance of school is a big factor in his attendance.

2. To help in bridging the gap between two cultures. I think of one little fellow whose father drove his family twelve miles to the bus route. This child was the youngest and very appealing. He would frequently use the toys as a means to communicate to me what his home was like. While playing with a toy truck he would say, 'Teacher, me truck home father.' Or another time, 'Mother cook' matching the word to his play activity. There is such a strong desire in the children to identify themselves with the new culture and to seek approval from the teacher who represents the new culture toward which they are reaching. There is such a need to talk about home and mother and often such a frustration because of inability to do it.

The toy becomes the symbol for experience which is familiar to both child and teacher and a bond of understanding is established.

3. To enrich and enlarge experiences. The Farm Unit in 'Before We Read' presented experiences which are quite unfamiliar to the Navajo child. Picturing as it does life on a modern farm in what might well be the middle western part of the United States, the experiences of milking a cow, feeding the chickens, gathering the eggs, giving milk to the cat from a bottle of milk in the refrigerator, seeing fenced in fields of grains and vegetable gardens and the experiences of the harvest, there is much that is unfamiliar. The Navajo child herds his sheep who eke out an existence on a barren land and the few goats fare no better. Chickens are kept by a few who know their value and have the money to buy feed. I turned to the toys as a means by which to extend experience and understanding. Fences were built with blocks or tinker toys, roads and bridges were improvised, stalls and corrals were made, and the scene constantly changed as ideas developed and one child learned from another. Accompanying this unit is a record entitled 'Sounds Around Us' which the children learned and enjoyed. They soon came to identify the sounds of the animals as well as the activities involving work in the barn or home.

The unit of the Zoo is perhaps the most removed from the experience of these children. Toy animals such as the giraffe, bear, camel, zebra, elephant, monkey, gave meaning to the words.

4. To gain insight into the child's thinking and to come to an understanding of his needs. One of the hard things in teaching these children is for the teacher to come to an understanding of how things in this new culture look to them. I used the toys for this purpose many times, and many times they served this purpose, though I had not foreseen that they would.

There was the time that the children used the playhouse refrigerator for a cupboard and it helped me realize that they did not have a concept of refrigerator. The doll's crib was wholly outside their experience since their babies are strapped to the cradle board. When I saw them using it for a push cart, I saw more clearly what I needed to help them learn.

5. To encourage creative imaginative interpretative play. It may seem strange to speak of the importance of helping children to learn to play, but with these children it is very important. Play, as we understand it, does not come easily to them. Three boys in particular who were shy, immature, reluctant to join others became interested in housekeeping play and would assume the roles of the family members. One would be the mother, with a scarf as the identifying feature. A smaller child would be the baby. They used the toys in ways for which they were not originally intended but which fitted into their experience.

By getting their experiences into play they better understood the material in their readers.

Gradually they began to play the stories we read or that I told to them. Goldilocks and the Three Bears became a favorite. One of the boys with sparkling eyes would announce, 'Me, Goldilocks' and make his home under my desk. This kind of play freed the children from much of the shyness which so often stands in the way of their school work. The make-it toys were invaluable for this.

A big box of tinker toys was available for several weeks and the uses to which they were put were endless. The things they made were of course about things they knew or had come to know at school, such as swing, slides, jungle gym, etc. Many new words were added through play with these. We had a season of tinker toy gun play which brought out such distinctions in sounds as 'gun' instead of 'gum'. 'Click and 'shhhhhh' uttered spontaneously enabled the teacher to spot difficulties in articulation.

6. To develop freedom in the use of the new language. It is one thing to speak words of the new language during a reading lesson, but quite another to use those words in general conversation among themselves. Yet if there is to be ease in using the language it must be put to common use. I turned to the toys to help in this.

The children would set the playhouse table and put the dolls to the table or sit down themselves. Conversation would be in Navajo. I would join the play and they would use English words to include me. Then we would talk about things they had been playing.

They loved to take such toys as the wagons, scooters, and pull toys to the playground. This meant much conversation about the use and misuse of the toy. I would ask them to tell back to me what I had said and when they came in I would ask them to tell how they had played with whatever they took out.

It was interesting that the use of English seemed to come easier when it was associated with a toy and play with the toys. Perhaps it was because the toys and the English represented the same culture and the children associated the two.

Since we know that even before the young child walks, he explores his world through his sense of touch, what better argument is there for the importance of a toy? To see, to grasp, to feel, to manipulate, to play with and use for your own creative desires, these are steps to learning. Desire to communicate is strongly evidenced on every hand, for once the strangeness of the school environment has disappeared, the beginners chatter freely in their own language to the teacher as well as to each other, not fully aware that she does not understand wholly. Little by little this lack of understanding on the teacher's part is realized, though at first the barrier must seem insuperable. Gradually they begin to trust her and to respond and to realize that she has the key as it were to their use of a new language. One can see the struggle for words take place and the satisfaction in release is a joy to behold. Then do words become ideas and learning proceeds rapidly. The class seems at last to have taken hold and they show that they know what it is all about. If toys served no other purpose they would have filled a great usefulness."

Dorothy Vann. Beginners.

"As each toy was introduced, it was shown to the pupils seated in the circle with the teacher. Children were asked to name the toy in English if they could. Others gave descriptive and sometimes amusing names in Navajo. A child was asked to demonstrate the use of the toy and all children were allowed to participate singly or in groups. Discussions followed the use of the toy. These included safety, the care of the toy and how to get the best fun out of it. If the toy was one which could be taken outside the children had to learn to ask in English for it. For easy checking, the name of the child and the toy were put on the chalk board so that when he came in the name was erased and the toy put away. This was necessary, because older children sometimes took toys away from younger ones. It also gave the children responsibility for taking care of the toy.

Songs and finger plays concerning toys were introduced as language aids which, together with the toys, helped fix words in the child's consciousness. They were learned at the same time the toy was introduced and experience reading charts were correlated with each toy. As the children progressed in reading, the charts were duplicated on individual sheets for each child who read them and he illustrated them. These were made into books for each child to take home and read to his parents.

Toys were combined into all sorts of experiences, providing language and reading opportunities. For example, we had a Valentine-Post Office unit. This called for an excursion to the local post office to buy stamps and mail valentines. That trip showed the children how to set up their post office window at school on the Puppet table. Each child had a chance to act as clerk, customer, postman, or mailman. The mail truck delivered mail to the children at their desks.

Individual testing was done by means of toy picture cards. The data were recorded on each pupil's individual record card and on the toy file cards. Films connected with the reading units were effective vocabulary tests for the children who were unaware that they were being tested. Word lists on which work needed to be done were thus obtained and toys were used in making the necessary words meaningful.

2

After the children achieved a feeling of responsibility for the toys the Toy Home Loan project was set up. At first a toy was loaned only for over night but later it was extended to include week-ends. The check-out and check-in lists necessary for this gave ample opportunity for conversation, for learning how to ask for the toy wanted, but most of all for responsibility for returning the toy and satisfaction in having thus been responsible.

Home visits were an important phase of this study because they enabled the teacher to learn pertinent facts about her pupils that could be obtained in no other way. Noting home facilities gave the cue for the toys that would have some meaning to the children and aided in selecting those which would provide the bridge from home to school activities.

A comparative rating scale was devised to rate the vocabulary of the children. Word lists were checked as children made the words a part of their working vocabulary. Both beginner classes from room 1 and 2 viewed the film strip on the U. S. Mail. Room 2 children had not had the Post Office play with the toys. The pupils in Room 1 showed their knowledge of such words as mailman, postman, mail box, letter, package, stamps, magazine, newspaper, by saying them when they appeared on the screen.

Toys were used in connection with the learning of the Star Spangled Banner which is required and which is difficult for the children. It came to have meaning to them as we set up the toy fort with toy soldiers, boats, toy cannon, our American flag, and the British flag.

The toys were used in connection with practically everything required as part of the year's learning. They furnished the wherewithal for a TOY PARADE in which the three first grades included in the study participated and which furnished the means for them to carry out their part in an all-school program without the customary self-consciousness that these children feel when appearing in public. Every kind of toy was carried or pulled in the parade. Gay balloons added color. The children forgot themselves for their interest was in the toys which they were using in ways which had become familiar to them, but which now were being put together into a public program. The overcoming of shy self-consciousness is no small accomplishment.

Teaching with toys has much to recommend it because of the high interest level it maintains. The children eagerly respond to cultural toys which open new horizons for them. Contrast the inside of the old traditional hogan with its oil barrel stove, sheepskin beds, orange crate cupboards with the compact toy kitchen set with gas stove, refrigerator, sink with real running water, cupboards and toy dishes, and even an electric stove on which the children can cook real foods, and one gains some slight concept of what toys can do to bridge the gap from one culture to another.

Toys were used to ease the fears of a little crippled lad whose leg gives way frequently leading to some nasty falls. His infected ear often pains but he is too proud to cry. It is just rain in his eyes. He was to go to Albuquerque, New Mexico to have his tonsils out and the trip was to be by plane.

He was frightened at leaving home, at riding in an airplane, at the thought of having his tonsils taken out. We gathered together all the airplanes and talked about them. We talked about the seats to sit in, the windows to look out of. The child who was going was not so sure, but another went home and told that he was going to have a plane ride. The Mother came the next morning to find out where we were taking her boy without her knowledge or consent.

The doctor and nurse's kit served to familiarize the child to some extent with the experience he would have at the hospital and he went away somewhat reassured. When he returned he gave endless details to all who would listen about the trip, the tall buildings, the many cars, the funny round doors that you push, and his experiences were re-enacted with the toys over and over."

Sarah Yoder. First Grade (one year)
Beginners (three years)[18]

"During the first few weeks of the study in 1959-60, the use of the toys was largely exploratory. More kept arriving by the day, and as they were unpacked, code numbered, cataloged and indexed, the teachers themselves had to become acquainted with them. There were many which they had never seen before. Further, the idea of having them available in such quantity, was one to which a teacher had to become accustomed.

During the exploratory period, the children were exposed to a great many toys. As one would expect, they were eager to use the ones that touched their daily experiences. For instance, a wooden bus with little wooden passengers was very popular. They built roads on the playground with the toy road grader. Then the passengers were scattered along the road and the bus came to pick them up one by one.

It soon became obvious that if toys were to be used in teaching new concepts to children, some real teaching must be planned. As each new item was set out for the children to use, we would talk about it, how to care for the toy, where to keep it, when to play with it. They were allowed about fifteen to twenty minutes to play in the morning before the opening bell. At recess and lunch period they were allowed to choose toys to take to the playground. The child who took out a toy was responsible for bringing it in and they learned to feel a sense of responsibility for this.

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[18] Portions of this account are quoted from Yoder, Sarah, "Report of a study conducted at Ganado Public School, Ganado, Arizona," presented in partial fulfillment of the requirements for the degree of Master of Arts in Education, Madison College, Harrisonburg, Virginia. Copyrighted July 1962. Quoted with permission.

I allowed the girls to take out jacks and balls for recess play. Each girl was given ten jacks and one ball. When the bell rang and they came inside I took time to have each child come to the desk and check in her ten jacks and one ball. Not one had been lost. They were very proud.

In contrast to this, one day when it was my turn for playground duty, I took out about 100 small tops. I passed them out to the children at random. When the bell rang and the children lined up, I told them to put their tops back in the box. We ended up with 60 instead of 100. The rest were probably 'lost' in pockets and even inside of caps or jeans. With these children, the concept of personal property is different than ours. With them you take whatever you need for yourself, and if you are caught, you are not ashamed of taking it, but will be more careful the next time.

By the end of the first few weeks of using the toys there began to evolve a working plan. I tried to define the terms I would use in the study. I defined 'non-English speaking children' as meaning those who come to school without the ability to communicate in English. They may understand a few words, but are not able to use them. Some do not even understand.

'Teaching English' to these children I defined as helping them to master the language sufficiently to understand what is said and to be able to use it with understanding and an increasing degree of skill. It was understood that this involves more than the mere rote learning of words but includes also the meanings of those words and a growing understanding of the culture which they represent.

It should be understood that Navajo children feel no urgent need for learning to speak English. Even a weekly shopping trip to Gallup, New Mexico reveals no need to them. In Gallup, the Navajo can find plenty of stores run by those who can speak Navajo and this town looks like an Indian tribal reunion every week end. At school the teachers put on the pressure for the child to learn English. If he cannot understand and speak well, he is likely not to be promoted. This does not concern him as it does Anglo children. Navajo people do not know the urgent urge to get ahead which drives the white man. Toys, it was thought, might serve as a motivating factor, if not in the matter of promotion, at any rate in the matter of learning English.

During the first year of the study a system was devised for keeping daily notes on 5 by 8 index cards. Here notes were set down on the toys with which the children played, how they used the toys, the conversation they engaged in, how the toy served as a line of communication between the child and the teacher, and the ways in which they were used to give meaning to words.

During the second and third year of the study, an attempt was made to give added meaning to each daily lesson in the school curriculum through the use of the toys. The recorded observations were continued and were invaluable in (1) noting each child's progress and (2) in comparing the groups from one year to the next.

This comparison brought to light evidences of increased interest on the part of children who had become familiar with different toys and to some extent with the experiences forming the content of their reading lessons. An instance of this is the story of the tricycle in the reader WE LOOK AND SEE (Scott Foresman). No tricycle was available in the first two years and none of the children had one at home. It was not in their experience and they showed a low level of interest in the story. Not so the third year. By then a sturdy tricycle had been received. The children had had the experience of riding up and down the hall and around the room many times. It took some hard work to learn the pedal motion and at the same time guide with the hands and look straight ahead. But they learned. When they reached the tricycle story in their reading they knew what it was about. They could identify themselves with it.

During the second and third year of the study a table was made for each of the lessons in each of the books to be read and was used as a guide in teaching. Following is a sample:

Lessons Taught[19]

Concepts, Skills Ideas, Values, Words Taught	Presentation	Toys Used	Correlation
Sentence meaning	The doll is little The doll is big	Big and little dolls	We read pictures pg. 15
Structural Analysis	Look at my boat. Look at ___ boat. (Child supplies word)	Plastic boat	Same pg. 16
Sensory images	The ___ is hard. The ___ is soft.	Wooden block Rubber ball	Same pg. 14
Whole-part relationships	A wheel is part of ___ (Child thinks of things)	Wagon tricycle, scooter, truck	Same pg. 41
Relationships (Association)	What two go together?	Cup, saucer	Same pg. 22
Emotional reactions	When the balloon burst did Sally laugh, cry, or get scared?	Balloon	Same pg. 13

A detailed lesson enrichment card file was set up according to the above sample. The system began with the first readiness book 'Before We Read,' followed by 'We Read Pictures,' and through the three pre-primers, 'We Look and See,' 'We Work and Play,' 'We Come and Go.' The teacher's manual was used as a guide in setting up the concepts to be taught. The teacher's knowledge and observation of the children served as a guide for additional enrichment needed. It was simply a matter of asking, 'What is it that needs to be taught today? How can toys help?' After the lesson an evaluation was made. If it had seemed too difficult it was simplified and reviewed the next day. Sometimes a repeat presentation was all that was needed. Bits of the children's conversations as well as their interest and reactions were recorded. This served as a guide for teaching succeeding lessons that year and the following year. If certain approaches brought satisfactory results a number of times it seemed safe to assume that they were sound teaching practices. If the children did not respond favorably, the teacher tried to think reflectively and come to some conclusions. Either the lesson is too easy, too difficult, not suited to these children's needs, or poorly planned.

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[19] Gray, Monroe, Artley, WE READ PICTURES (Chicago, Scott Foresman Co. 1956).

Each unit of study called for one or more experience charts. The children gave suggestions; the teacher helped in correct sentence structure and then wrote the stories in large letters on a large piece of lined oak tag. The charts were illustrated with drawings, photographs, or pictures cut from magazines. At first the children enjoyed looking at the charts but made few attempts to read them. Near the end of the year when they had gained more reading skills, these charts became one of the most popular attractions in the room. They were kept hanging at eye level on a chart rack near the rest room door. As the children waited their turns, they would read them over and over. At the close of the year, each child took a chart home. In a sense, the entire research was of an experimental nature. Ideas were tried, evaluated, and then tried again. As time went on, methods and procedures were refined, modified, changed.

While tests were given it was felt that test scores are not sufficiently significant to use as conclusive evidence. It is difficult to find tests which adequately measure a first grade child's ability to speak and understand English. More accurate and conclusive, it seems, are the daily observations and their interpretation by the classroom teacher.

The toys served to motivate the children to talk, but not until the teacher learned that she must use them with a definite plan. Otherwise the children would play with them and go right on talking in Navajo. The appeal was to their interest in talking two languages, not dropping their Navajo, but adding English to it.

Often the toys served as the means for the children to express in some visible form an enlarged concept, as for example, one day when they saw a movie of a little boy's visit to a city with elevated tracks, tall buildings, and streets jammed with traffic. Soon they began to use the large cardboard blocks to make tall houses. Smaller blocks were used for building tracks. Another day a lively business sprang up through use of the tea set. This was after some of the children had been to Gallup, New Mexico. After eating a hamburger (a block) the teacher was told, 'You pay'. In reply to the question, 'How much?' came the answer, 'Twenty-five cents.' Such experiences with the toys gave the teacher an idea of the children's comprehension of the ideas which had come to them as well as furnishing the means for putting those ideas into tangible form.

When the hand puppets came, I wondered how I had ever taught without them. At first the children were intrigued with making the mouths work by their hand movements. Then I began asking questions, 'Can your puppet talk?' and there would be a reply such as 'My puppet say I am going to eat you.' Soon we made a simple stage and the opportunity to get behind it with the puppet presumably doing the talking, did away with the shyness that so often stands in the way of free language expression. They even talked loudly enough to be heard in the back of the room. This was an accomplishment, for often the voices are so low as to be difficult to hear from even six feet away. Soon we began to have such statements from the puppets as follows:

> Today is snow.
> My name is donkey.
> I live at Klagetoh.
> Good by.

Then we began on an idea of a simple play with the puppets, a very simple one, but what an exercise it was in sentence construction, in organization of ideas, in selection of words, and what fun they had doing it. It was language, but language that was alive, dynamic. It finally worked out that the puppet show was our part of the Toy Parade given for the school program.

To sum it all up. Were the toys merely set before the children? Not at all. Were they used solely for the enjoyment they gave? No. Each toy was introduced, discussed, and the children knew the limits. Stick horses are for riding, not hitting; wagons must be kept away from the swings; small cars and trucks cannot be banged into each other, etc. Here was learning of play with law and order, but this was not all. The toys became teaching tools, tools with which the learnings expected of this grade were stimulated, clarified, organized, vitalized. It must be realized that sentence meaning, structural analysis, sensory images, whole-part relationships, relationships by association, and insight into emotional reactions, are learnings of a high order for any children. For these children who are achieving those accomplishments in a second language, it is a great accomplishment. One would never say that it has been fully achieved, but only that a beginning was made and that the toys, with no shadow of doubt, aided immeasurably in the achievement. Further, they aided in making the learning pleasurable for the children and teaching pleasurable for the teacher. This is an essential element in learning and in teaching, if both are to reach their optimum effectiveness.

During the last year of the study (the fourth) procedures used previously were refined, but special attention was given to the specific teaching techniques with which they were used, since through their use from day to day, the teacher learned many things to do and not to do."[20]

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[20] These are included in Part V, Group 3.

Kathleen Klassen. Second Grade.

"In carrying on my part of this study, I had two specific purposes in mind, (1) to achieve the goals prescribed for this grade, and (2) to discover how toys could be used to help the Navajo children attain these goals.

In perusing the Course of Study which we are expected to follow, I found the following time allotment:

Language Arts-Communication	45% of school day
Social Studies, Science, Music, Arts and Crafts	30% of school day
Physical Education, Health and Safety	10% of school day
Arithmetic	10% of school day
Teacher-Pupil planning and Evaluation	5% of school day

According to the suggested time allotment, 45% of the school day of second graders should be devoted to Language Arts which include Listening, Speaking, Reading, and Writing, i.e., Composition, Spelling, and Handwriting.

My immediate reaction was that I spent more than the specified time on Reading and rightly so, for it is slow going, and that sufficient time was given to Writing. But what about Listening and Speaking? Listening to what? Speaking about what?

I have taught long enough to appreciate the importance of listening skills and one needs only to glance at the numerous articles in current educational magazines to realize the attention that is being focused on this art today. Likewise, the ability to express oneself, to speak clearly, concisely, and distinctly with poise and self-confidence, is an art not easily attained and worthy of our best efforts.

As I turned to the section on Communication in the Arizona Course of Study, I was impressed anew by the following quotation:

> 'The degree to which a child expresses himself spontaneously and interestingly, will depend upon the wealth of facts and ideas he has to express. The language program, therefore, must provide for intake, or the acquisition of ideas to express. The teacher must stimulate the interest of the group by providing a program that will challenge thinking, open up new avenues for experiences, enrich ideas, expand vocabulary, and provide many occasions for communication. The wealth of the intake will determine the interest and effectiveness of the outgo (expression). As children gain ideas and feel a desire to express them, they will be interested in mastering the skills that

will enable them to express those ideas more effectively. The Teacher's objectives:

Greatly broadened interests.
Enriched background of ideas.
Well developed social attitudes.
Inclination to evaluate expression.
Much expanded and enriched vocabulary.
Increasing desire and ability to share ideas.
Ability to express ideas in writing.'[21]

I realized full well that at second grade level, the language program should be a day long activity centered in all areas of curriculum and not an isolated program. But again, teaching children with such a limited knowledge of the language in use presents peculiar problems. By this time I was aware of the many possible ways toys might be used to motivate and challenge my class and to help build a bridge between two cultures over which Navajo children might cross. I used them in the following ways:

For discussion and composition. Since I had chosen to use toys as a basis and background for language activity, I decided to begin with a modified 'show and tell' time. I made a wide selection of toy animals, and for several days exhibited them around the room, just out of reach. My purpose was accomplished as the children's interest and curiosity was aroused.

Finally one boy was brave enough to ask to play with an animal, and when I asked which one he would like, he chose an appealing monkey. We used the monkey as our animal of the day. Any child could hold the monkey if he would come before the group and use a sentence to tell something about it. We had a lively time describing that particular monkey and discussing monkeys in general, and it was the teacher who was amazed to discover how much information the children possessed.

After our discussion period, we worked together to compose a short story about a monkey which I wrote on the board as they spelled the words and reminded me to use capitals and correct punctuation. Later for their writing lesson, they copied the story and illustrated it. Each day we selected a different animal until we finally had them all down where the children could play with them in their free time. This illustrates one procedure used throughout the study with different groups of toys.

To provide a broadened basis for language use. This is illustrated by a unit which we worked out on Community Helpers and which correlated with Social Studies.

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[21] Arizona Course of Study for Second Grade. Pg. 11.

I made a display of toys that would illustrate and suggest various helpers. We began by talking about all of our helpers at school, such as our superintendent, principal, nurse, doctor, dentist, the cafeteria workers, the maintenance people, and the bus drivers.

The list grew to include our post mistress, the mailman, the traders and others in the community. As a natural outgrowth, I led the children to talk about what they would like to do when they got big. At the close of the unit, we worked together composing the following rhymes which served later as one number on our room program for assembly:

When I Grow Up

1. When I grow up, I want to be
A sailor brave and sail the sea.

2. I think it would be lots of fun
To be a soldier with a gun.

3. I want an airplane all my own
To fly up in the blue.
If you'll come to the airport
I'll give a ride to you.

4. When I grow up, I'll be a nurse,
So don't get sick, or you might get worse.

5. I want to be a teacher
And go to school each day
I'll let the children read and write
Then play and play and play.

6. A farmer, with some cows and pigs
Is what I'll be when I get big.

7. I want to be an engineer
And ride my train year after year.

8. I want to be a policeman
And go walking up the street.
I'll give a great big smile
To everyone I meet.

9. I'd like to be a mother
With a baby on my knee
I think that is the nicest thing
Any girl can be.

10. I'd like a great big fire truck
So red and shining bright
I think it would be lots of fun
To fight a fire at night.

11. I think I;ll be a cowby
And ride my horse all day
I'll live on beans and bacon
And feed my horse some hay.

12. I'd like to be a space man
And go flying to the moon
I'm glad I'm getting bigger
So I can leave real soon.

I will be eternally grateful for the help the toys provided both for the wealth of language discussion, the broadened ideas and vocabulary, of which the rhymes above are the outcome, but also for the self-confidence and ease which the toys meant to the children on the day of the program. Each child's toy seemed to lend him confidence, helped him feel at ease, and gave him something to do with his hands. Not one child covered his mouth as he spoke his lines. No one except one who knows these children can know what an achievement this is.

During the time we were working on Community Helpers, John Glenn made his oribtal flight. On the morning of February 20th, I asked the children how many had radios at home. Six or seven hands were proudly raised. Then I asked how many had listened before coming to school. Five hands went up. When I asked what they heard, they said 'Cowboy music' 'A man talking.' Then one boy waved his hand wildly. With a shine in his eyes and a grin on his face he said, 'Rocket man go up.' That child's name may never reach the papers (but it may) but that day he shared John Glenn's glory as he spread the information he had assimilated among his classmates. In our toy collection were several model rockets, and for days, the children talked rockets, drew rockets, played rockets.

To bring new information. This is illustrated by our work on Travel and Transportation. I assembled a collection of travel toys, including a burro, horse, wagon, car, pick-up truck, bus, train, boat, ship, airplane, and of course, a rocket.

We began with the familiar and talked about travel on the Navajo reservation. Then with the aid of a big United States map, a world globe, and books on far away places, we ventured far afield. For children whose world can be measured with a thirty mile radius, this indeed was a new experience. Horizons were enlarged, new vistas opened up, and a little knowledge gained of a world beyond Gallup.

Our culminating activity was a large mural depicting such modes of travel as a woman on foot getting water, a baby on a cradle board, a man riding horseback to the trading post, a pick-up truck with a load of fire wood, a bus going down the highway, a train heading toward the city, boats sailing on a lake, and overhead an airplane. One boy suggested that the lake should have been an ocean so there would have been room for Cape

Canaveral. This we never could have accomplished with any shade of meaning for the children without the toys which brought the concepts to them that gave meaning to the words in the books.

For demonstration purposes. This is illustrated by our work in Health and Safety practices. Navajo children live such secluded lives that they are unaware of many health and safety rules that other children learn early. Superstition and lack of education on the part of parents, unsanitary living conditions, poor nutrition, lack of medical attention, all contribute to a high incidence of disease. Anything that the school can do to combat these conditions is of great importance.

We used the toys for demonstration purposes as we talked about how to improve conditions and prevent accidents at home and at school. We compiled a list of safety practices to be observed at home, on the school ground, on the bus. We made posters and drawings for illustrations and Raggedy Ann and Andy will long be remembered for the part they played in creating situations.

To learn necessary arithmetic facts. This was provided through the toy store which was our most popular project. I collected a wide assortment of toys. Before any one was placed on the shelf of the store we described it, discussed the price to put on it, talked about what it was made of and in some instances, weighed and measured it.

When the store was well stocked, we got out a small cash register and a set of toy money and began buying and selling. We worked out games that involved making out bills and making change as a means of deciding who would be the day's cashier.

Navajo children have little occasion to handle money and therefore do not have a sense of its value. When we began the store, there were only three or four in the room who knew the value of various coins or how to make change. This is one of the requirements set down for second grade arithmetic.

To open up the joy of books. This might have come in many ways, but it came to this group through a science project, if one wishes to call it that. It might have come without the toys, but I don't see how. Anyway, it came with them.

It started with a project on animals, farm animals, zoo animals, animals of the world. The interest was deep. One afternoon, a boy was telling about a leopard. I had noticed one of the Anglo children wearing a leopard coat and I asked if anyone had ever seen anything made of a leopard skin. One boy said, 'Yes, a diaper.' The class laughed, but I knew by his face he was not clowning, though he often does. I questioned where, and he said, 'In the movie.' It was Tarzan's loin cloth.

We worked along many lines, gathered our information into units, wrote compositions, but the most important thing came in a way neither planned nor anticipated. As we discussed the different toy animals I kept adding books about them and read them many stories about the animals. The minute the children arrived at school, one after another would rush for some toy animal and then get a book to find where it told about it. Some began to read about their animals to others. One day I realized that a tremendous thing was heppening. The children were reading because they wanted to. They were not reading for a lesson. They were reading to get information about something. I can never tell the part I feel the toys had in that motivation.

To expand vocabulary. All the procedures described have contributed to this, but a few illustrations will show how it was done as a basic purpose.

I went through the vocabulary list of our basic readers to see how I could use toys to (1) develop understanding of objects foreign to their culture, (2) help differentiate between words of similar meaning or the same word with different meanings, or between words similar in appearance, (3) to make words more meaningful, especially abstract ones, (4) to clarify the meaning of comparative adjectives.

We read of children raking leaves, making gardens, hoeing potatoes, yet these children have few, if any, of these experiences.

We have many words with shades of meaning such as sniff and smell. We have to learn to distinguish between push and pull. One parks a car and plays in a park.

Toys were used to clarify the above and many others like them. We used them to demonstrate, over, across, before, through, by, near, around, beside, in front of, and behind.

We used them to gain concepts of big, bigger, biggest; of small, smaller, smallest; of both, more, not so many, more of.

We used them for the vocabulary drill which is so necessary. We made many games. We played with the toys and described the play. We set up scenes to duplicate that described in the reading lesson. We made up stories from groups of toys with the corresponding word card. I used the toys to introduce the new stories with their new vocabulary.

It would be impossible to recount all the ways the toys were used. We lived with them. They became as much a part of the schoolroom living as the books, the charts. We used them in learning good manners; in talking about clothing suitable for different occasions; in discussing the weather and its relationship to the clothing one wears.

The use of the toys with relation to clothing was especially significant and interesting. I used the big dolls with a number of outfits. We talked about the outfits, about the changes in light of the weather. Then I brought out pajamas and a nightgown, both wholly foreign to the Navajo children. The idea of changing to special clothes just to sleep fascinated them even while they must have puzzled over the white man's peculiar ways.

Running notes were kept throughout the course of the study, notes on the progress of individual children, on the ways different ones used the toys and the learning that came from it; on the ways the toys were used in group projects and resultant learnings; on conclusions that I came to as time went on.

No set forms were used for my records. There was so much to record that they would only have hindered doing it. Often I studied the records that had been taken and pulled out the main points as indicated in the account I have just given of the ways the toys were used."

Ethel Frazier. Fourth Grade.

A description of the way one project was carried on will serve to illustrate the procedure which was used with the toys, though with each project, there were many modifications.

The project I will describe was a farm in the lands of four seasons and plentiful rainfall. My objectives were:

1. To see if, and how, toys would help the children visualize a farm in such an area.

2. To see if, and how, toys would help the children get the facts they were supposed to gather from the farm study prescribed in the work for this grade.

3. To see how the toys could be used to help the children learn and understand new words in their vocabulary.

4. To see if toys would help the children to adjust more easily to this aspect of a culture unfamiliar to them.

First we read the two chapters in the Geography book to get a background for the study. The books is 'The World About Us.' As supplementary material, we used two sets of encyclopedia, two other geography books, some pictures put out by 'Know Your America' program by the National Geographical Society, a pamphlet by Allis-Chalmers Research Laboratories on 'The Story of Man and Food,' and the toys.

The toys we had at the beginning were: a barn with silo; a doll house with an upstairs; a small red shed that could be chicken house or hog house; six cows, three calves, two pigs, twelve chickens, one rooster, five sheep, four lambs, two dogs, these children. It is one step in understanding another culture.

Papers were written about the crops, the farm animals, the farm activities. Did we increase our vocabulary? The following is a check of words new to many.

Word	Number of children using the word on at least one paper
garage	15
windmill	11
pasture	24
machinery	8
combine	4
hay baler	1
granary	7
corn picker	2
tractor	14
furniture	13

It would seem from the papers the children wrote that they gained a great deal that would help them visualize a farm. Without the toys we could not have made a farm. It was the making of it that helped them to see it. From the test I know they learned the facts better than on other projects. Incidentally, they had more fun doing it.

I am confident that the more a child learns about the white man's culture in these simple ways, the more easily he will adjust to it. Learning about the farm house and what the furniture is and where it is placed in the house makes him more familiar with it. As he becomes familiar with these things he will feel more assurance as he moves into a culture outside the reservation or as that culture comes to him on the reservation.

Other projects in which we used toys in a way similar to the above, included: one based on the story, 'How a Song Named a Flag,' from the reader 'More Times and Places.' In this project we used a toy fort, a wall around the fort, fifty or sixty toy soldiers, a battleship.

When we studied 'Everyday Life in Long-Ago America' in History, we made use of the Lincoln logs and the house built from them was the setting for our whole study in which they learned about fireplaces, roofs of different kinds, chimneys visible from the outside of the house, shutters and windows.

Another project was the puppet dramatization of The Three Bears. We used finger puppets and the play was given again and again, thereby giving language practice in large measure and practice as well in being before a group.

It became my general practice to give a vocabulary test before

9. Our hay we ______ and put in the ________ for winter.

10. We feed ________ to the pigs. We __________ the pigs when they are fat.

Tabulated results were as follows:

Question	Correct Answers
1	15
2	22
3	27
4	21
5	26
6	26
7	25
8	22
9	23
10	12

Question 10 seems to me to indicate something about the toys. It was 'We feed corn to the pigs. We sell the pigs when they are fat.' Twelve children answered this question correctly. Nine said 'We eat the pigs when they are fat.' I believe that if we had had fifty or a hundred toy pigs instead of two, more children would have been able to have seen that it was ridiculous to say that the farmer would eat that many pigs.

On this factual test there were no failures. With this group on other geography tests this year, no matter how much drill on the facts I gave, there were about eight or ten failures. This proves to me that the farm project with the toys helped the children learn the facts better than the units I taught without the toys.

Comments made in conversation periods are indicative of significant learnings for these children who come from hogans with fair to poor living conditions. Following are samples of comments written following discussion:

D______ The house was pretty. It had windows and doors and chimney too.
S______ We made a house and made some furniture for it. We made a bath tub and some beds too. We made some chairs and a table. I made a sink.
V______ We made things houses need. It needs chairs, table, dishes, stove, bed, clothes, and lots of things.
Va_____ We made many things. What I like to make is an ice-box and television.
H______ The house had a window and stairs and a place to take a bath and electric lights everywhere and a table to eat on.

The idea of different rooms in a house used for different purposes, it must be remembered, is a new concept for many, if not most, of three types of procedure serve only to show three different approaches. Following are samples of each:

1. Toys used and the ways they contributed to the learning.

Puppets help us get acquainted. At the first of the school year we played a game called 'Get Acquainted.' Each child was allowed to choose a puppet from a group of twenty. When his turn came he was to go behind the puppet stage (a large piece of cardboard) and tell his name, where he was from, what he liked to do and what he had done during the summer.

They spoke into a tape recorder microphone that was taped to a wire curved to fit around the neck. The tape recorder was plugged into a loud speaker so even the softest voices were heard.

Every child was able to tell something about himself in complete sentences. Some did it with questioning by the teacher, the majority by themselves.

I have had children stand for long periods of time staring at the floor unable or unwilling to speak. Rarely would they volunteer to speak in front of the group. With the puppets all were eager to have a turn. This at once removed one of the greatest blocks we have to free speaking.

The doctor set helps improve English. The children often say, 'My arm is hurt' in place of 'My arm hurts,' or 'There is a burn on my arm.'

During one English lesson one of the boys pretended he was the doctor using the toy doctor set. The teacher was the nurse. As each child came forward to see the doctor he had to tell the nurse what was wrong. If he said his sentence correctly and it was not an illness someone else reported he received a candy pill from the doctor.

Each child was able to report an illness correctly, although some had to go through the line twice before receiving a 'good English' pill. The lesson had some carry over for sick call which is every morning at ten when the children are to report any sickness so that the teacher can send them to the school nurse who can treat them or send them to the hospital if necessary. Now when the teacher asks the children, 'What did you say?' when they give the incorrect form they can repeat and say the sentence correctly.

Before the lesson on pronouns in the English text, the children were given a member of a Navajo doll family or a member of a realistic looking rubber doll family.

Each child was to pretend the doll was a brother, sister, mother, father, uncle, a trader or someone in the room. They were to tell four things about the person.

1. Tell who the doll is.
2. Tell what he or she is wearing.
3. Tell where he or she is going.
4. Tell who is going with him or her.

One boy said, 'This is my brother. She is wear brown pants. He is going to play with me.'

When the teacher asked the boy what was wrong with his second sentence, he did not know. She asked the class. Someone knew. Then the boy repeated the sentence correctly.

One boy said, 'This is my uncle. She is going to hand-stick-away to Gallup.' (This means hitch-hike).

In each case the teacher asked if the child knew what he or she said wrong. If so, they corrected themselves. If not, the class helped. The one who spoke incorrectly, repeated the statement correctly.

After having presented the correct usage of pronouns using the dolls, the text presentation was followed in Using Good English by Laidlaw. As a test, the children were required to write three paragraphs. Each time they were to substitute the person's name with a pronoun. The grades were high.

23 . . .100%
1 missed 1
1 missed 2

Another test was given of twelve sentences with twenty of the common mistakes found in changing from Navajo to English. They were to write the incorrect sentence correctly; e.g., 'This is my sister. He has on a purple dress,' should be written: This is my sister. She has on a purple dress.

The scores ranged as follows:

Number right	Percentage right
7	100
7	95
8	90
1	85
2	80
2	75

Farm toys help make pupils aware of ed endings. The suffix ed:

a. has the sound of t when it immediately follows any voiceless consonant except t. The voiceless consonants are f, h, k, p, c (s), s, x, (ks) as in puffed, pitched, cooked, helped, voiced, hissed, boxed.

b. has the sound of d when it follows a vowel sound or a voiced consonant except d. These sounds are a, e, i, o, u, y, b, g, j, l, m, n, r, v, w, x, z. Played, mooed, lunged.

c. has the sound of ed or id if it follows the consonant t or d. Wanted, loaded.

When the children come to an ed ending in their reading or speaking, they often do not know which sound to use. To make them aware of the three sounds and which one to use, a chart was made incorporating them as follows:

The suffix ED has three sounds		
't'	'd'	'id' - 'ed'
Voiceless consonants f,h,k,p,c(s),x,(ks)	Voiced consonants b,g,j,l,m,n,r,v, w,x,z Vowels a,e,i,o,u,y	d,t

The children were each given an animal or machine from the farm set and told to tell something the animal or machine had done. The teacher gave several examples. Then each child was to think of a sentence and say something different than the teacher or other children.

The first child said, 'My truck stopped.' The teacher pointed to the chart and said, 'Stopped. Does stopped end with the sound of t, d, or id?' The child said, 'Stopped ends with the sound t.' The class repeated, 'Stopped ends with the sound t.' The teacher asked, 'Does anyone know why stopped says t instead of d or id?' No one knew. 'It is because stop ends with the letter p and every word that ends with an f, h, k, s, or p before the ed is going to say t.' So on with other sentences and words.

When the chart was completed it looked like this:

The suffix ED has three sounds		
't'	'd'	'id - 'ed'
Voiceless consonants f,h,k,p,c(s),x(ks)	Voiced consonants b,g,j,l,m,n,r,v, w,x,z Vowels a,e,i,o,u,y	d,t
stopped	slowed	loaded
jerked	narrowed	grunted
quacked	crowed	twisted
jumped	waddled	butted
leaped	toppled	crowed
clucked	gobbled	departed
chirped	squealed	skated
peeped	shoveled	needed
tipped	ruined	suggested
pitched	huddled	counted
scooped	cradled	intended
raked	plunged	guided
pecked	mowed	started

The toys furnished a quick starting point so that each child was able to think of a sentence with a word that ended in ed. As a side line it gave them a review in the use of the names of the farm machines taught earlier in the farm unit in Geography.

To test their ability to distinguish between the three 'ed' sounds, the children divided their papers into thirds with the letter d, t, and id at the top. A list of ten 'ed' words from the chart and reader was read. The children were required to list the word number under the correct column. Also they were given a list of ten 'ed' words and asked to write the number under the correct column. Their scores ranged as follows:

Number of children	Percentage made
4	100
5	95
3	90
1	85
3	80
3	75
3	70
2	65
1	25

Our class was the first of the fourth grades to use the tru-scale farm machinery. Thirteen boys learned the names of thirteen pieces of equipment and how to use them. With the teacher's help, they practiced telling the class about the equipment on three different days. At the end of our farm unit, they took the equipment to the next fourth grade to study farming and explained what they had learned. The other members of the class drew pictures of farm machines and wrote a sentence or two telling the machine's use for a hall display.

On the pre-test, one child knew the name of the drill and plow; nineteen knew the wagon and twenty-one the tractor. On the test following the unit, thirty-two knew the combine, tractor, wagon, elevator, and plow; thirty-one the corn picker; twenty-nine the loader; twenty-five the disc harrow; twenty-four the hay baler; and twenty the grain drill. Plus the fact that each of the thirteen boys was able to hold up his head and speak so that he could be heard and in complete sentences.

The toys gave the children an accurate idea of the different types of farm machinery through actual acquaintance with them. They were truly teaching aids.

2. The subject being taught and toys as aids.

Whenever possible toys were used to show the meaning or meanings of a new word in the reading vocabulary. Following are samples of introduced or explained with toys:

a stall - in the barn
handle bars - of the tricycle
canoes - with paddles
power crane - with lever, cab, crane, jaws, and slamshell
corn crib and baby crib
strokes - with roller skates
fell full-length - with roller skates
patchwork quilt - doll blanket
airplane taxied down the runway - with plane
measured molasses to make hasty pudding in the double boiler

There were, of course, many words for which there were no toys to clarify the meaning, but it was surprising and enlightening to find that for a high percentage of the new words there were either toys which directly related to the word or could be used in modified ways to illustrate the meaning and make the word come alive.

Example 1. While studying a pioneer unit in reading, the children built a log cabin, flatboat, covered wagon, and mill out of the Lincoln logs and Snap-eze. One cabin was a cut-away view showing a labeled hearth, ladder, loft, beams, iron cooking pot, latch, table, chairs, spinning wheel made out of construction paper.

In a vocabulary matching test taken by thirty-two children, the only words missed in the labeled scene were mill and meal. These were confused by four girls even after we had used cornmeal at school to make hasty pudding. Hasty pudding was made by one of the pioneer girls in the story.

Example 2. I borrowed a barn, a colt, and a mare from a first grade room. The children looked for the definition of a stall in the reading glossary. One child read the definition orally. Then we all read it.

The teacher said, 'In one hand I have a mare which is a mother horse. In the other hand I have a colt which is a baby horse.' Then we practiced on answering, 'What do I have in this hand?' using a complete sentence. Then we practiced on putting the mare in the stall and the colt in the stall.

Teacher: 'In our story it says the colt was snuggling against its mother. This means getting close to the mother. Who can make the colt snuggle against his mother? Tell us what the colt is doing.'

All of the children got the meaning of stall readily, but snuggling was everything from rubbing noses to 'snuggling is a sleep.'

Example 3. As an experiment, two groups of six pupils each were set up on similar ability according to the teacher's judgment after having worked with them half of a school year.

Each group was taught the story, A Handy Thing to Have Around, as outlined in the Scott Foresman teacher's manual. Group A was taught without the toys to visualize the printed word and situations. Group B was taught with the toys. The same amount of time was given each group. Neither group heard the other taught. The test results are listed below, with children of similar ability across from each other.

Group A without toys	Group B with toys
W . . . 85%	R . . . 90%
J . . . 65%	A . . . 95%
N . . . 80%	Al. . . 90%
Ar. . . 75%	J . . . 85%
R . . . 60%	H . . . 70%
T . . . 50%	R . . . 90%

A second story was taught, Southbound Flight. The same pupils were used but with the groups reversed in the use of the toys. The stories were of similar difficulty. Test results follow:

Group A with toys	Group B without toys
W . . . 88%	R . . . 82%
J . . . 94%	A . . . 94%
N . . . 70%	Al. . . 82%
Ar. . . 76%	J . . . 64%
R . . . 76%	H . . . 70%
T . absent	R . . . 76%

While such experiments cannot be said to be in any way conclusive, they serve to support the teacher's daily observation that the use of toys clarifies meaning of new words to a marked degree and so promotes ease in reading and aids comprehension.

History.

Each week the children studied about a different historical personality. The first three studied were Christopher Columbus, Captain John Smith, and Miles Standish. The children knew something about two of them, but none knew about Captain John Smith, so I shall use him to illustrate the use of the toys.

We made a model of Jamestown. Snap-eze were used to make the Indian homes, a fort, church, animal traps. Clay figures of people included John Smith, Pocahontas, John Rolfe, and Powhatan. The ship Constant was anchored in the blue crepe paper James River. This was the basis of much writing of labels, signs, writing of stories, and the use of the toys made the learning concrete instead of abstract.

Geography.

Over the year, six regions of the world are studied. A model community was made of each region by following pictures and descriptions in the text and using toys. There is a desert community, a forest community, a farming community, a fishing community, a manufacturing community, and a trading community in the United States and abroad.

In studying the forest community, the class made a model of Evergreen City, Oregon, by arranging Kindercity (one of our toys) around a mill and pond. In the distance was Old Baldy, a pile of sand with a look-out tower on top made of Snap-eze. The spar tree was a tinker toy stick with a real toy pulley attached to string. The evergreen trees were of green construction paper, the streams crepe paper, the roads were flat pieces from the Lincoln Log set. At the end no one failed the standardized test that goes with our text and which is difficult. The children used the lumber vocabulary as they discussed how to make different details, labeled or told what they did on the model.

A field trip to the new sawmill at Navajo, New Mexico, owned by the Navajo Tribe, was one phase of the study. To prepare the children for seeing the mill, forty flash cards were made of all the machines, workmen, and processes they would see. They were shown a schematic drawing of the mill. They were drilled once a day for a week on the forty names, making sure that each child could pronounce the words correctly.

If correct pronunciation is not insisted upon, a trimmer saw becomes 'timmer saw'. The reason for this is that there is no r in the Navajo language. Jack ladder would become 'ja lader' with a glottal stop and a 'd' which is a cross between and English d and t. The glottal stop is a Navajo consonant occuring at the end of many of their English words. It is one of the last accents to leave the English speaking Navajo.

At the mill, the operation was explained in English and in Navajo. Each Navajo guide had ten children and one adult in his group. The guides used the flash cards mentioned above when showing the different operations.

When the children returned to the classroom, they made a model of the inside of the sawmill, using tinker toys and rubber bands. They made a logging truck, a jack ladder, barker, carriage, band saw, edger saw, trimmer saw, stacks of lumber, a fork lift, and used the toy truck to carry the lumber to market. They drew pictures, wrote stories about the whole process, which was the first time some had been able to write anything. Then we wrote invitations and invited the grade schoolrooms, and high school, to come to see the display.

3. Some specific project in which toys were motivation, means of expression, and an aid in accomplishing some teaching purpose.

All of the illustrations already given could properly fall into this grouping, but singling out some specific detail of study serves to further indicate the multiple purposes the toys serve.

Knowing when to add s.

Stilts - These are favorite toys. Before the children go out to play, they have to ask for the equipment. If they say 'stilt' which they often do, they are given only one. They soon learn to add the s.

Silverware - In dramatizing one of the stories, one child insisted on saying, 'You help me polish the silverwares.' Over and over we worked on this, using the knives, the forks, the spoons from the toy set.

The negatively phrased question.

One speaking problem is the incorrect, though logical, manner of reply to a negatively phrased question, such as 'Don't you have a pencil?' The correct reply according to common usage would be 'No', but to the Navajo, 'yes' is the reply, meaning 'Yes, I don't have a pencil.'

In working on this, we used the zoo animals, the farm animals, the machinery, almost any toy, with questions, 'Don't you have a giraffe?' (when he was holding a lion). While the toys had no direct bearing on the matter, they served to enliven what would have otherwise been humdrum drill.

In defining the procedures used by the different teachers in carrying on the toy study, it has been impossible, as mentioned earlier, to isolate them from the daily teaching procedures in the individual classrooms. As has been seen from the reports, the use of the toys became increasingly a part of the teaching procedure. Records kept for the study, therefore, became records of individual and group progress in the school learnings. Items to be recorded naturally became the details of the children's learnings, and of the techniques used by the teacher in bringing them about. Procedures for the study evolved as the teaching procedures evolved. The fact that the toys became so much a part of the classroom living and of all the teaching procedure that the study, the teaching, and the learning merged, is perhaps the most significant overall outcome of the study.

Part Five

Summary of Findings

I. General Statement

The findings of the study on the USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN as summarized and presented here represent the individual and collective thinking of the participating teachers.

The findings, as they gradually emerged, fell into three groups and they are so summarized here. Group 1 has to do with the use of the toys as related to the specific details of the learning of English by the children. Group 2 includes the group living learnings which accompanied the learning of English by the children and were (as they always are) a natural part of the classroom living. Group 3 is comprised of those conclusions which relate to specific teaching techniques in the use of the toys and which furnish suggestions to other teachers wishing to make similar use of them in their classroom work.

The process by which the findings were clarified, grouped, summarized, and specifically defined, was an exercise in group thinking which it is believed forms a significant part of the study, furnishing as it did a final overall view for the teachers of both the scope and the depth of the work of each individual participant and of the relationship of the various contributions to the composite whole.

This collective group thinking took place and the final statement of findings was arrived at in a series of meetings during a three-day visit by the supervisors of the study in the late spring of 1963.

Prior to this, the individual reports had been drawn together and a final composite one organized in tentative form following the general organization of the report here presented, though not yet in complete form. This included a statement of the findings as they had appeared in individual reports to the date of the visit. There still remained to be made the addition of findings which had emerged since the submission of the last reports in February 1963. The tentative composite report thus prepared served as the basis for the discussions pursuant to the completion of the final report.

Two full evenings were spent in the group discussions in which all of the teachers who had worked on the study at any time participated. It is significant of the interest which made the study possible that teachers who had not formally participated during the final year or the previous year, not only were present, but brought with them findings of which they had kept careful record. The Superintendent of Schools participated in the discussions on both evenings and the Principal was present at the final one.

Prior to the two evening conferences there had been both individual and small group conferences with such teachers as wished them in order to go into more detail on particular phases of their individual studies than could be possible at the general group meetings. These gave the opportunity for them to become familiar before the evening conferences with the general form of the composite report and to be thinking of modifications, additions, deletions, which they felt would improve it. Thus all came to the evening conferences oriented and ready for the discussions.

The report was presented to the group part by part with identification of portions taken from individual reports and the reading of descriptive connecting sections as prepared by the supervisors of the study who had compiled the report in its tentative form. Major time was given to the discussion of the findings. Some were reworded for greater accuracy. Some were combined to show more effectively some significant relationship. Some which had seemed vague as presented in individual reports were brought into focus and clarified and stated in the manner which seemed to best express the thought of the individual teacher.

As discussion proceeded on the first evening's conference, findings began to come into conscious awareness which had not been thought of as of especial significance, but which in discussion, were agreed upon as being vital. It was thus that it was decided that those in Group 3 should be included. Throughout the study, the teachers had kept notes of their teaching techniques in the use of the toys, but it had not become clear to them that within these were details which constituted an important phase of the findings. Their attention had been primarily focused, and rightly so, on the learnings of the children and on their teaching procedures. Many techniques in using the toys, which contributed to the children's learning, had escaped their attention as being significant. When the importance of these to anyone reading the study and wishing to make similar use of toys with any group of children became clear, it was agreed that they would go back to their records prior to the next evening's conference and draw out suggestions for the group to discuss. These were discussed in full detail at the final meeting which covered a period of approximately four hours. Here, also, there was the final reading of all findings and discussion of implications reaching beyond the limits of the classrooms and the school in which the study took place.

The findings as presented here, therefore, represent not only the individual conclusions of the participating teachers, but also their collective thinking and agreement and the concurrence of the Superintendent who followed the study throughout its duration and was fully conversant with the findings as presented by the teachers and who added emphasis to one or another from his own overall point of view.

II. Specific Findings

Group 1.

This is the group of findings relating specifically to the immediate details of the actual learning of English speaking, reading and writing by these non-English speaking children. In order to aid the reader in assessing the findings and in interpreting them in their full significance, there is presented below, a statement of details involved in a Navajo child's learning to use the English language with ease.[22]

1. Actually hearing the sounds of the English words accurately. Hearing combinations of sounds. Hearing the entire word.

2. Associating the words spoken to them with whatever it is those words are intended to convey.

3. Relating the words spoken or read with some experience which gives them meaning.

4. Grasping the idea which is represented in a sentence. This involves grasping the relationships among the words.

5. Speaking the words with the sounds in order and reproducing them with correct syllabification and inflection.

6. Getting together the English words which convey the idea that often has been previously thought but in Navajo.

7. Keeping the idea to be expressed in mind until the English words can be recalled and spoken.

8. Speaking the words in proper English sentence form.

9. Using a single word to represent abstractions instead of a phrase or series of sentences as is common in Navajo.

10. Bringing sentences together in organized form to convey related ideas in making a paragraph.

11. Speaking the words without being so diverted by shyness and self-consciousness that thought is lost.

12. Using parts of speech in correct place, adjective, adverb, noun, verb, pronoun, when there is not the counterpart in Navajo or when they are used in different position than in English.

13. Using words denoting gender in their proper reference when they do not distinguish gender by word forms in Navajo.

14. Differentiating among words needed to denote color when in Navajo one word covers the range of blue, green, purple as we use those words in English.

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[22] Examined and approved by Robert W. Young, Area Tribal Operations Officer, Bureau of Indian Affairs, Gallup Area Office, Gallup, New Mexico, and author of "A Sketch of the Navajo Language" in the Navajo Year Book published by the Navajo Agency, Window Rock, Arizona.

15. Mentally discerning the color and using the word for it in proper association.

16. Differentiating among words pronounced the same but with different meanings, e.g., bear, bare; there, their; fare, fair.

17. Differentiating among words spelled the same but of different tense, e.g., Will you read this story? I read that book.

18. Learning the use of abstract words such as coldness, height, length, when in Navajo, the concept would be expressed in concrete terms, e.g., "You are cold, I didn't go because it was cold," rather than "The coldness prevented me from going."

19. Associating the printed form of words with the meaning as that of the spoken word.

20. Being able to recognize the words in print; get the thought they convey; speak them correctly - recognizing visually as well as audibly.

21. Recognizing periods, commas, and other forms of punctuation and remembering to observe what each means.

22. Using word and sentence inflection, pitch, and tone to convey meaning, e.g., This is a stone. This is a stone. This is a stone.

23. Getting the idea of conveying thought by printed form instead of verbal speaking.

24. Becoming accustomed to the English sentence structure and using it.

Following are the purposes the teachers agreed were served by the use of oys in their work of teaching English in its many details as indicated above:

. To provide a link between the two cultures.

This is of basic importance. The public school program is attempting to teach the fundamental skills in a language many of the words of which have no counterpart in the Navajo tongue because the experiences and concepts have no counterpart. Only as the children are led to experiences in these new patterns of living can the words and symbols have meaning. Through the language of the toys, the children receive these experiences and grow in their understanding of the new culture which they must learn. Improved language was the natural outgrowth.

In the reading material prescribed for each grade level, the children daily meet the challenge of this other culture for all of the readers reflect it. The words connote experiences with which they are unfamiliar, designate objects which to them are often unknown, refer to standards of behavior different from their own.

The toys are an invaluable aid in making the teacher's explanations come alive, in helping the children to visualize the objects of which she is speaking. They give her the means to demonstrate whereof she speaks. They give the children something tangible to handle, to look at, to use in trying out the new concepts as they attempt to become acquainted with ways and ideas represented by this new language they are asked to learn.

2. To serve as a means of motivation and interest.

The toys add zest and color to learning and lift necessary repetitive drill above a monotonous and somewhat boring activity to a challenging and interesting experience, as in the case of the toy store where addition and subtraction facts came alive.

They furnish motivation for plays which give practice in speaking as well as in organizing ideas. They make the drill on spelling words colorful instead of drab. They furnish the impetus for writing. They give something to talk about.

They enliven all of the classroom living and not only motivate the children to more dynamic learning, but the teacher to more creative teaching.

3. To provide variety in drill and practice.

This is of prime importance since continuous drill and practice are essential to fix the correct speech forms; to help the children develop ease and assurance in the use of words not natively familiar; to bring about easy familiarity with sentence structure different than their own; to help them achieve accurate pronunciation, clear articulation, and the habit of completion of words to their final endings.

While drill and practice is essential to all learning with all children, yet for these children in their learning of a second language, it is particularly necessary since their native language structure makes their speech patterns widely divergent from those they must learn in English.

The very fact that the toys with their multiple possibilities for varied use infused interest, challenge, and variety into the necessary drill made them a highly contributing factor in speeding up the learning of English. Further the fact that they carried with them a high degree of interest, freed the children from a feeling of self-conscious necessity to be "working" at the learnings set for them. They worked, but they worked with interest and this is no small achievement.

4. To develop understanding of vocabulary in context.

The children were constantly confronted with word meanings for which the Navajo language has no counterpart. The housekeeping corner and the activity there brought to life words like stool, refrigerator, mixer, electric iron, plug, clothes pin, tea kettle, measuring cup.

Many words in the reading text, likewise came to life through the toys that associated not only the words themselves with a visual image, but made it possible to put those words together into an activity which put them into a contextual setting. Such words as the following are illustrative: sled, sliding, skate, hoe, rake, waddle, fiddle, stairs, etc.

One single story illustrates the point. In a second grade the words "squeak," "squeal", and "squawk" were included in the reading lesson. The children could use their knowledge of phonetics to master the pronunciation, but of what use is pronunciation without meaning? The rubber model of Snoopy gave the meaning to squeak; the baby doll squealed; the goose squawked. How glad the teacher was that she did not have to attempt to demonstrate the differences!

5. To provide a basis for speaking in English.

The toys have provided a natural basis for speaking in English which is highly interesting and significant as one analyzes it. The Navajo child has few, if any, toys. The toys he finds at school have no association with his home, with his out of school experiences, with the Navajo language. They are associated with school,with experiences there, with English. It is easier to speak of them and about them in English. This was an outcome that was a highly useful one.

One of the great difficulties confronting a teacher of these children is to get them to speak the language they are learning. Even though the words are known and the child is able to speak them, it is easy when there is something to say to slip back to the mother tongue of Navajo. Rules are often made that in class only English may be spoken, but even so, when free play time comes, the language is often Navajo. Special recognition is given to those children who make an effort to speak English, but English words come slowly, and when there is interest in what one is doing and eagerness to share some idea, Navajo comes more easily.

6. To aid in making unfamiliar experiences meaningful.

A teacher in Navajo land must always face the fact that these children by the nature of their living lack the concepts and ideas prerequisite to an understanding of the principal part of the material contained in reading texts.

The setting of a majority of the stories in the texts is in city or farm life, both of which are utterly different from anything the Navajo child knows. The events in the stories are patterned after happenings in the life of an average middle-class family. These events are so strange to a Navajo child that he cannot understand or appreciate what he is reading, for example, stories about (a) helping the hired man, (b) picking apples, (c) shoveling snow from sidewalks (they have plenty of snow but no sidewalks), (d) decorating a Christmas tree, (e) watching a big steam shovel at work.

These children are familiar instead, with such activities as going for a load of fire wood, gathering pinon nuts, making a trip to the windmill for water, butchering a sheep or goat, herding sheep, weaving a rug or fashioning jewelry of turquoise or silver, putting the baby in a cradle board (a crib to them is a strange kind of cart).

Day by day, story by story, the background must be prepared. Toys played an important role here in helping create situations in miniature to bring meaning to otherwise meaningless experiences.

7. To develop vocabulary and clarify word meanings.

There are all of the words which the children meet in conversation and in reading for the teacher to make sure are clear in meaning. It is easy for a child to speak a word, even to read it, with no clear understanding of its meaning. The toys have been an invaluable help in this respect. When one speaks a word, asks the child to get the toy indicated by the word, and he does it, then she knows that he knows what it is.

The same holds true for the words needed to describe some experience. One speaks of an experience in the reading lesson. Many times there is no Navajo word for the experience. If the experience is strange, and there are no Navajo words with which a child can interpret the picture in the book, one can imagine something of his bafflement. Further, it often takes many Navajo words to express what is indicated by a single word in English. Thus a teacher must work constantly to give vocabulary and meaning to the vocabulary. When one can reach for the toys as the words are spoken, those words come alive.

8. To provide cue for recall.

"Do you remember the day we did thus and so?" the teacher says. "That is what this story is about." And the picture of the experience comes to the child who participated in it, perhaps by helping to build a farm, or a village, or by using a puppet in a dramatization.

For the child who has so many new words to learn, so many new experiences to assimilate, so many new concepts to keep sorted out, it is a boon to have toys which, when his hands touch them or his eyes light upon them, recall a whole experience. To the teacher, it is a boon to have such a means of recall to offer the child.

It makes for greater independence than to have to be told the word that toubles him. It adds to his self-respect to be able to reach for it in memory and come forth with it. The expression of satisfaction on a child's face when the light dawns, shows the inner sense of well being that comes from knowing he has the key to the situation in hand. Here one reaches beyond the immediate learning to the inner attitude toward learning.

9. To furnish the means for expressing ideas, for putting them into action, for deepening impressions and fixing knowledge.

Ideas often outrun the words with which to express them when those words must be in a language that one is newly making his own. Often the ideas are not clear enough in thought to be put into words, even granted one has the words. Again they are fragmentary and can become full-fledged only by seeing the concrete representation, then finding the words describing it.

Toys serve this purpose. As the children build a farm, the toys they use are the means by which they bring their ideas out of vagueness and put them into form which they can talk about. As they build a village, the idea of tall buildings takes shape as hands put one block atop another. There may not have been the words at hand to express the feeling of height but the blocks can be used to do it easily.

Puppets, in countless instances, were the means for bringing into words ideas which the children could not have formulated without the avenue for expression which the puppet furnished.

With the farm animals and machinery, they brought out of thought, their impressions of the farm activities. With the dolls and play house equipment, they brought into the open their concepts of the kind of living they read about in their books. With the toy store equipment, they put into action their ideas about buying, selling, the value of money, the relationship of storekeeper and customer.

Not only did the toys furnish the means of expression of ideas which they could not have otherwise formulated into words, but they served to reveal to the teacher the misconceptions which might have gone long unknown and uncorrected had it been necessary to depend only on verbal expression for them to become evident.

10. To furnish impetus and stimulation for speaking.

For these children whose expression of thought is held in check by inadequate facility with language, the stimulation to communication becomes of vital importance. A teacher is constantly on the alert for such means of stimulation as the toys provided, stimulation so natural that the child speaks naturally because he has something he wants to say.

The toys provided something concrete and interesting to talk about. In a unit on animals, second grade children forgot their shyness and gained confidence as they held an animal and talked about it to the class. Toys were orten used as a basis for conversation with an individual child.

One heard them talking of their own accord as they played together in the housekeeping corner, or the toy store. The building of a Post Office in a first grade with the mail delivery and the writing and mailing of letters was a natural stimulus to conversation.

Toys of all descriptions served as the starting point for speaking to the group, for telling about a chosen animal, about a selected piece of machinery, about a given doll and her varied outfits.

11. To aid expression through relieving self-consciousness.

With puppets on their hands, children were able to speak who would otherwise have wriggled in shy embarrassment. With the toys to hold their attention, children forgot themselves sufficiently that they could take part in all-school programs in the assembly hall and before audiences of considerable size and not only could they take part, but could do it happily. This was a long step from standing silent, staring at the floor unable to speak. It is an important step in the learning of English for how can one learn to speak unless he speaks and how can he speak when his own self-consciousness stands in the way? The fact that the toys helped in removing this is a measure of their worth as a teaching tool.

12. To aid in forming the habit of using complete sentences.

One problem every teacher of Navajo children must face, is that of trying to get the children to speak in complete sentences. There has to be constant opportunity for practice in doing so. When there is a groping for words, it is much easier for both teacher and pupils to settle for a word or phrase. However, an injustice is done unless a teacher plans for times when only complete sentences are acceptable. Toys have been helpful in providing for those times.

With the youngest children, each child often chose a toy and told his classmates, "This is a train," or "I have a horse." Later a post office built of big blocks gave opportunity for asking the postmaster, "May I have a four-cent stamp, please?" In a fourth grade, a guessing game called for complete sentences as the child who was "it" chose a toy and described it and the others asked, "Is it the _________" until it was identified.

The toys gave something interesting, varied, and tangible to talk about and furnished the reason for the exercises that gave practice in the use of complete sentences.

13. To aid in using varied parts of speech to produce interesting sentences.

In the learning of a new language expression tends to become stereotyped and words that are best known are used repeatedly to the exclusion of others which would make for more varied and interesting speech. Toys served as the means for bringing in different parts of speech and reviewing them. For example, in a fourth grade, Raggedy Ann and Andy were introduced. The teacher wrote "Raggedy Ann" on the board and then asked, "Is Raggedy Ann a noun, pronoun, adverb, adjective?" When the correct reply was given, she wrote "noun" under the name.

Through a series of questions and answers with the actions performed as indicated, Raggedy Ann jumped, sat down, stood up, etc., and the parts of speech were identified and discussed. The final sentence concluding the drill was, "Red-haired Raggedy Ann jumped quickly to the floor today."

14. To aid in learning to follow a logical sequence of thought.

The toys furnished the tangible reminders of what the next step in a sequence of activities or in some process would be. To follow such a sequence in abstract form, is difficult when one is confronted with the necessity for doing so in an unfamiliar language.

An example of the way toys served this purpose occurred in a second grade, where a display on the top of the low book shelves traced wheat from the farm through all the processes to the bread in the supermarket.

Toys were used for the same type of purpose in a fourth grade in tracing power through man power, wind power, water power, machine power, atomic power.

15. To furnish the stimulus for creative writing.

Writing in itself is difficult enough, accompanied as it is, by the necessity for expression in an unfamiliar language. To ask the children to write creatively was to ask them to write with freedom of thought, with imagination expressed in words with which they were only just becoming acquainted. Toys proved to be the freeing agent, so to speak.

They furnished the motivation and gave something to write about, something interesting for the children loved the toys. Creative writing in a fourth grade started with the fashion dolls used as puppets. The children made up dialogue orally first. As they became enthused, they made small (crude) stages on which the puppets could perform.

Then they made simple plays and put them on over and over. Without the dolls to give them ideas and inspire them to putting forth effort, the writing of anything creative would have been dull and laborious. As it was, it was vital, dynamic, interesting.

In another fourth grade, following the Raggedy Ann exercises mentioned in #13, the children were given the assignment of making a story about the Raggedy family. One boy had them visiting a steel mill in Pittsburgh; another going to the Navajo Fair; another being scared of the big, bad wolf; another using fairy magic in the castles of make-believe. One girl wrote of what the dolls saw during their stay in the fourth grade classroom and what they thought about it.

16. To teach any school subject in which the use of English is in any way involved.

The listening, speaking, writing, included in the actual learning of English, naturally reaches into every school subject. To the degree that the toys aided in the children's gaining facility in using English with ease, in understanding and comprehending the meanings of words and expressions, in gaining some clear idea of experiences involved in their various studies, to that extent they were an aid in teaching every school subject and to the children's learning thereof.

Group 2

This is the group of findings having to do with the group living learnings which accompanied the learning of English by the children and were inextricably interwoven with it. These findings include those which indicate the part the toys played in such learnings. They relate to the children's group participation; to the learning of details of the culture of which the English language is the expression; to the values, standards, and principles of living inherent in that culture. Without these learnings, the learning of the actual mechanics of the English language would be without meaning. The findings related to the part played by the toys in these areas are as significant in the teaching of English to these children as if they had to do with the identifying of parts of speech or with the structure of a sentence. They point to the part the toys played in unfolding to the children, understandings which serve as basic background for their use of English. In these areas of group living, the toys were found by the participating teachers to serve the following purposes:

1. To bring the children together in play lessening the barriers between them.

There are many barriers between these children when they enter school. One is their inexperience with group play outside their brothers, sisters, cousins. They live in isolated family groups and all others are outsiders. The idea of mingling with children from many other family groups as they must do at school is new and strange.

There is also the barrier between the sexes. Some boys have never played with girls before and vice versa. Not only then is the idea of play with other children new, but play with the opposite sex is even more new.

The strangeness of the whole school situation is another barrier and this as well as the others the toys helped to lessen. They furnished a common basis of interest. They invited to doing things with other children. They gave a reason for sharing. They brought new experiences into the children's lives in doing enjoyable things with others of their own age. The words, "our toys" came to have meaning, as did also "playing together," "let's do this," "will you play with me?" "make it together" - all expressions showing the lessening of barriers and opening the way to a whole area of new concepts.

2. To provide purposeful activity for free play time.

The toys provided outlets for energy which filled free time with something besides clowning, trouble making, idling away of time in aimless activity. The school day was long and often recess and the noon hour had to be spent inside because of inclement weather. It was interesting that play with details of school subject matter was the favorite. Store keeping went on when there had been a store set up in the room. Work continued on the farm building or whatever was under way. Play time became an extension of school time with the toys providing the continuous thread of interest and enjoyment.

3. To stimulate creative and imaginative activity.

The toys helped to free the children from the barrenness of their environment and take them into tea parties, into store play, into cooking and serving a meal, into puppet plays where fancy roamed in ways one would hardly have believed possible.

Children whose imagination has been stimulated by stories play more creatively than those who, like these children, have had no such contacts. These have not had the stimulation of movies, of travel, of story records, of many of the experiences that form the background for "Let's pretend."

The toys furnished the stimulus that took the children outside themselves and created situations that enabled them to go off in flights of fancy. The farm in a fourth grade gave the situation through which the children could identify themselves with the activities they read about and farm play was a favorite.

4. To teach good manners.

Good manners in the Navajo culture and good manners in the white man's culture are very different. The toys were invaluable in teaching good manners in every grade. Toy dishes were used to teach table manners. Setting the table and having a party made the learning of table manners fun.

They were used in playing house and in the learning of "please," "thank you," "excuse me," and all the little details of gracious living.

Using the toys in working on a project gave a natural situation for learning how to work together harmoniously with consideration for others and the exchange of ideas and suggestions.

The building and carrying on of a store, a trading post, a post office, gave the opportunity for learning common forms of courtesy: "Good morning, may I help you?" and the reply, "Yes, thank you, I would like some bread."

Puppets were an aid in the children's learning how to make introductions or to greet invited guests. They played an important part in learning about thank you letters when it came to writing to the manufacturers who had sent the toys.

It takes endless practice to make courtesy become habitual and the toys furnished an invaluable media through which to work.

5. To teach responsibility for care of property.

With the use of the toys came the natural need to care for them. The idea in the Navajo culture that what belongs to one belongs to all, brings with it a resulting tendency to feel no personal responsibility for its care. In school while the toys were for general use, the children met the idea that each individual was expected to feel responsible for taking care of them.

Further, they furnished opportunity for learning what it means to take care of them. For children who have never had them to use, this was a basic learning. It included learning the proper use of the toy, e.g., roller skates are for skating, not for pounding. Still further, it included learning that skates, bicycles, wagons, carts, scooters, need oiling and cleaning if they are to last, that all toys must be kept in proper place instead of thrown helter-skelter in a box together; that games and puzzles call for watchfulness that pieces are not lost.

The conversation, new vocabulary gained, clarification of word meanings essential to these learnings, can hardly be even described.

. To teach safety measures.

This included such learnings as (1) keeping to the right when roller skating or using wagon, scooter, and the like; (2) keeping the toys picked up from the floor so that no one would trip over them; (3) standing back from the batter when playing baseball; (4) removing any broken toy immediately so that no one would be hurt with sharp edges or protruding corners.

In a fourth grade, there was special attention to the safe use of guns. This was pertinent to the children's daily living for guns are familiar equipment to them and many accidents occur yearly from their careless use.

7. To teach details of suitable clothing for different purposes.

This relates not only to what is proper, but to what is adequate. It is not uncommon for children to come to school in zero weather with no coat or only a light sweater, not so much for lack of clothing, as because of the idea that it makes for hardihood. The toys were an invaluable aid in helping reverse the idea that going without a coat on a winter day is a sign of strength.

Through the use of the flannel graph figure called Wee Willie Weatherman and his changes of clothing, the children were given practice in reading the thermometer to see what Wee Willie should wear and dressing him accordingly.

The fashion dolls gave the opportunity to teach without criticism of the children's apparel, some kinds of outfit are suitable for school, some for parties, some for church, some for play, some for winter, some for other seasons.

8. To furnish the means for participating in a special occasion.

Each year every teacher is required in the Ganado school to put on one program in the auditorium. The toys were used in the programs by each of the teachers participating in the study.

The programs included a toy parade; an animal puppet show; a review of the important men studied in history in costume or with their inventions; another puppet show of all the countries studied in geography; a demonstration on verbs. A child jumped rope; another child said, "She jumped the rope. Jumped is a verb."

On holidays, the games were used as part of the celebration. The electric train ran around the Christmas tree and toys were part of various birthday parties. One class of fourth graders mixed, measured, then baked their refreshments in the toy electric stove.

The year of the Seattle World's Fair, one class made a little world's fair, showing a model community of twelve countries. Toy houses, animals, people, farm machinery, boats, factories, trees, fences, were used to create the scenes. A summary statement which was the answer to eleven questions was placed beside each region represented.

9. To become familiar with customs of the white man's culture.

The toy stove (electric), cooking utensils, eating equipment furnished the setting for a "party" to which an adult visitor was invited. Four boys cooked cereal, learning in the process what "boil" means. The teacher helped them with setting the table. They decided who should be invited.

(Three girls and the visitor). They spoke their invitations simply, "Come and eat," but it was none the less an invitation. They served the cereal. Conversation during the eating was sparse, but there was some. The visitor expressed her appreciation of the party and of being invited. The boys washed the dishes. (In Navajoland, this is not the man's job.) The occasion furnished material for writing later with the following as a sample:

We had a party.
We cooked cereal.
We invited _________.
She said, "Thank you."

The doll house with its upstairs and tiny furniture, was the means for learning the names of different rooms, and the furniture to place in those rooms. One day a small toy truck backed up to the house and the furniture was loaded in. The family was moving to the high country for the summer to find grazing for the sheep. Thus the two cultures mingle in the child's thought.

0. To open doors to a world beyond the reservation.

Toys have been the key for opening many doors, doors through which today's Navajo children will have to pass. Through the toys the children have become acquainted with different kinds of homes and the furnishings of those homes. They have seen in miniature a way of living not possible in a hogan.

They have, in imagination, been firemen riding fire trucks, engineers on trains, pilots on airplanes, nurses and doctors serving their people.

Many often ask, "Why impose our culture upon the Navajo? Why require these children to learn about suburban living, about big cities, about factories, mechanized farms, the zoo, birthday parties, and all the rest? Why not write for them a curriculum suited to reservation life? Why not center their curriculum around the sheep raising, rug making, chopping wood, which they know? Why educate them to be of the white man's culture? Why not educate them to be good Indians and leave them to their own culture?"

The answer is not an easy one. There is the danger of destroying the culture the children know and leaving them with no appreciation for their fine heritage. Yet certain trends are evident. More and more Navajos are leaving the reservation to find work for the land cannot support the growing population.

The people are reaching out for modern conveniences and comforts. There is no alternative to teaching the children the white man's culture. The intermingling of the two cultures is under way. As industry comes to the reservation and the years of schooling become lengthened, there is no longer the possibility of maintaining the isolation which the Navajo has known.

If the school does not prepare the children for the world in which they will be living, working and competing, then the school will not be fair to them. Thus the children must have the opportunity to experience vicariously as many of the experiences of the world beyond the reservation as possible.

The more the school experiences can ease the rough places of adjustment, which the children will inevitably meet, the better it will have served its educational function. This does not necessitate destroying nor belittling the Navajo values, customs, and patterns of thought, but rather relating to and enlarging the small world the children know and giving them preparation for the larger world toward which they are moving.

No one could ever hope to measure the usefulness of the toys in attempting to accomplish these purposes. No one can say where the influence of the toy study may lead nor how lives may have been affected through the opportunity to learn through toys as a part of the regular school equipment. Whatever influence they may have on the future of these children, there is ample evidence that their present living was enriched through the opportunity to use them and their learnings enhanced thereby.

Group 3.

This group of findings has to do with the details of teaching techniques which emerged and became clarified as the study progressed. They are offered as a suggestive guide to other teachers who may wish to use toys as teaching tools.

1. There must be definite planning for the use of the toys.

   Merely putting them out and letting the children use them as they wish is not sufficient. While this may serve a useful purpose in stimulating play, it does not induce the children to use English, nor does it of necessity, teach them any of the details of speaking or writing English, nor of comprehending it when it is spoken to them.

2. Look ahead to see what is in the curriculum foreign to the children's experience and think where toys can help to bridge the gap.

   This takes thoughtful consideration on the teacher's part and a background of understanding of the children's home life, how they live, what they are likely to have seen and experienced, and some effort at insight into what may seem strange and unfamiliar to them.

   What toys can be used to give the children experiences so that they can reach from their own way of living to the white child's world of electrical appliances, modern furniture, houses with rooms for different activities, big city stores, merry-go-rounds, parks, zoos, trains, airplanes? If one is going to use toys to do this, one must study the curriculum and study the toys to see how the latter can fit into the former.

3. Study the possibilities and uses of the various toys.

   A teacher must take time to browse through the toys, handle them, play with them, get the feel of them. Some toys require a reading of directions; some require assembling; some require actual play before the teacher can envision what they will mean to the children. As a teacher plays with them, one creative idea leads to another and a chain reaction is started just as with the children. Without such familiarity with them, their use tends to be academic rather than alive with appreciation.

An example of the necessity for knowing the possibilities of the toys, lies in an experience of one teacher. She decided to have the children boil eggs for an Easter party, using the toy electric stove. The tiny stove did not produce heat enough to bring a large pot of eggs to a boil. At the end of the day, the eggs were only well heated, and the children had long since lost interest in the project. Another time a toy rocket was taken from the toy supply, brought to the classroom, assembled as the teacher hastily read the directions. Everyone went outside, eager to see what would happen as the rocket was set off. Nothing did. The teacher learned to observe the suggestion to study the toys before using them.

4. Select toys for use with which one feels comfortable.

Just as in the telling of stories, one appeals to one teacher more than another, so with the toys. A teacher with no mechanical inclinations, may become frustrated with models which have intricate parts. Some teachers enjoy working up a puppet show, while others care little for puppets. The best teaching with toys is done with those to which the teacher herself responds favorably.

Keep the toys needed for teaching specific units within easy reach, preferably on open shelves.

There are two reasons for this, one so that the teacher can bring them into the work easily, the other so that the children know what is available to them and can make choices freely to fit with their work.

Do not overwhelm the children by giving too many toys at one time.

A child needs time to explore each new toy and see its possibilities. His attention cannot center on too many areas at one time. Imagine what confusion would result if a fourth grade geography class were trying to study Eskimo life, midwestern farming, and steel manufacturing, all in one week. The same sort of unrelated and disorganized confusion can result from trying to introduce too many toys at one time. Ideas go off in all directions. This is especially true with children who have had few toys at home.

Take time to introduce the toys to be used and help the children see what can be done with them.

Just as one introduces new words so one introduces new toys. Suppose the children have never used tinker toys. They have no idea what can be done with them. The teacher helps them to get acquainted, not to the point of dictating the use to be made of the toy, but to open up its possibilities to them.

Give the children time to use the toys manipulatively before expecting them to use them creatively.

It was interesting to note that nine and ten-year-old children who had never had toys, would use those commonly used by much younger children in the same manipulative way the younger child would do. This stage soon passed, but was always to be noted. Time should be allowed for it. It is part of getting acquainted with a new object.

The handling and manipulating stages were provided for by special periods when they could play freely with no reference to the school work. There was plenty of opportunity in these periods, however, for conversation, for the introducing of new words, for talking in complete sentences.

9. Open up the possibilities of the toys to the children.

A box of blocks remained untouched on the shelf in a beginners room. The children had never had blocks. They did not know their possibilities. The teacher gathered a few around her and turned the blocks out on the floor. She sorted them by colors. She set one atop of another. She laid some end to end. Soon the children were happily at play with them. After days of play, it became natural to turn to them to demonstrate the meaning of the word "red" or "blue". Later, as the children made a farm, it was natural to them to use the blocks for building. There had to be that initial start that showed them some of the possibilities which children who had had blocks at home would have known.

10. If some toy is not serving a useful purpose, put it away for a time and get it out later.

Sometimes the children are not ready for the toys the teacher thinks would be useful. A group of first graders were given some hand puppets. They were shown how to make the puppets talk. However, they used the puppets in a general chasing of each other, not catching the idea of using them in even the simplest kind of dramatic play. Several weeks later, they were introduced again, and this time the children were ready and one puppet became Goldilocks at once, another the Big Bad Wolf.

11. Hold the children responsible for participating in keeping the toys in their proper place.

This presupposes having places provided for them. It is part of the children's learning to keep them there. This is part of orderly living and plenty of English can be taught in the process.

12. Give attention to the proper care of the toys.

When one thinks of toys as teaching tools, it is reasonable to give them, and teach the children to give them the same care as any teaching material. The play dishes need to be washed, dried, put away; game pieces need to be sorted and put in the proper box; dolls are more fun to play with if they have clean clothes.

13. Teach the proper use of the toys.

A little boy races a truck across the room and bangs it into the wall. Another throws the blocks from the middle of the room to a box in the far corner to see if he can aim straight. Three children climb onto the hobby horse at the same time. A little girl spills "coffee" all the way across the room because she has filled the pot too full. There are proper and suitable ways for using the different toys and part of their usefulness as educational material lies in the children's learning those ways.

14. Start simply and let one thing lead to another.

The dollhouse in a first grade room illustrates this point. At first, there was only a table and chairs and tea party dishes. Then one piece of furniture after another was added, a cupboard, a stove with painted-on burners, several pots and pans, a small broom and dust pan. Throughout the year, various things were added as they came up in the curriculum. During a unit on community helpers, a milk carrier with miniature milk bottles was brought in. While reading about a store, an old purse, toy money, were brought in. When electrical appliances appeared in a reading lesson, a toy carpet sweeper and toaster were brought in, then an ironing board and electric iron (play).

As each new toy was produced, the teacher made sure that the children knew what it was, that it was connected in their minds with their reading, that they knew how to use it and where to keep it. By the end of the year, the playhouse play showed an understanding of home living which extended far beyond the children's actual home experiences. This sort of learning can only take place in a step by step pattern.

The manipulative skills also develop step by step. A child who works hard and diligently to get one large bead on a string, is obviously not yet ready for tinker toys. No rules can be set for moving on to more complex activity. The teacher must take her cues from the children. As development takes place, the easier toy is laid aside for the more difficult, and each new toy becomes an adventure in learning.

15. Do not expect toys to be the panacea for all teaching problems.

In the words of a second grade teacher: "The toys cannot be expected to work miracles. We still will have our slow learners, our children with problems, our reading failures, but we will have added another teaching tool that will give an added boost in more ways than one might expect."

TO SUM IT UP

On the basis of the four-year-study in which toys became an integral part of the teaching situation in the Ganado School, the teachers participating in the study agree in the following general conclusions and the Superintendent of Schools concurs:

1. In teaching English to the Navajo children, toys are a useful part of classroom equipment, just as are paper, pencils and books.

2. Toys can properly be considered teaching aids as truly as any commonly recognized visual aid. Toys serve a different purpose, however, than pictures, films, movies, in that they offer a kineasthetic approach to the comprehension of meanings furnishing the opportunity to feel, touch,

handle objects representing the language and culture being learned.

3. Toys are useful in developing all of the basic skills needed for success in school.

4. Toys are useful beyond the development of knowledge and skills in the subject matter areas. They are equally useful in teaching desirable ways of living.

5. Toys should be considered as teaching tools and provided as such.

The point can hardly be over emphasized that the findings which have here been presented are the outcome of serious, thoughtful study and emerged gradually as the study progressed. They represent learning on the part of the teachers participating. This is best set forth for the consideration of readers of this report in the words of three different teachers. One writes:

> "I have one great concern which I feel should be mentioned in the final report. I am sure there will be those, as there were in our school, who will have a negative reaction to the idea of a toy project and of toys being used in the schoolroom. 'Toys in the schoolroom! Heavens, children naturally know how to play and they get enough of that now. What we need to do is to get down to brass tacks and get some teaching done.' This was the comment heard in one form and another at the beginning of the study. After working with the study for two years, I can honestly say that some of my best and most rewarding teaching has been done with the help of the toys."

A second one writes:

> "When the toy study began, some of the teachers thought and said, 'What we need is more work, not more play.' The teachers who joined the study soon realized that it was more work for them without a doubt. They had to review the prescribed curriculum and ask themselves how the toys could help them teach it. What is it that our Navajo children need in order to equip them for today and the future? How can I do a more effective job of teaching them through the use of the toys? What do I really know about the Navajo language, culture, and aspirations of the children's parents? How can toys help to bridge the gap between their culture and mine? How can toys broaden their experiences and interests? Can the toys help each child do more active participating in the school work? Can toys make necessary drill more interesting?
>
> As we who were in the study started experimenting to find the answers to these questions and many more we experienced new ways of teaching. Rooms became alive with meaningful activity. The children began doing more of the talking and participating, because the teachers were providing things for them to talk about, to live interestingly with, to enjoy in a meaningful way.

> As the toys came in they stimulated the teachers to think creatively. 'What can I do with forty-eight lobsters?' They were used to dramatize a reading story, to put into a lobster pound for a fishing unit, and for number work in ways one would never find suggested in any text book.
>
> When the rockets arrived there lay the opportunity for the children to experience in a small way, the adventure into space. The teacher would never have tried to teach those children about the space program and the activities at Cape Canaveral without those rockets.
>
> Those who participated in the study, found that the toys could be used as tools in teaching in a creative way - they were the stimulus for both children and teachers."

The third one writes:

> "We do not wish to leave the impression that teaching with toys is easy. It is not. To teach with toys, one must know the subject matter thoroughly. One must know the toys and their possibilities. One must plan and organize one's work even more carefully than without them. One makes mistakes and one learns - and the joy of the learning is deeply rewarding."

Conclusion

The present study as heretofore reported, can properly be thought of as a pilot study. No claim is made that its findings are conclusive, except as they apply to the Ganado situation. In that situation, there is a consensus that the use of the toys was highly valuable; that they aided in effectiveness of teaching; that they enhanced the children's interest in school; that they facilitated the learning to a high degree; that English was more fluently spoken and more understandingly comprehended because of their being an integral part of the teaching situation.

While the findings have been presented solely in light of the immediate situation in which it was carried on it seems wholly reasonable to suggest their applicability to any group of children in a school situation where there is the necessity for them to learn a new langauge and where it devolves upon the teachers to teach them that language, while also teaching the prescribed subject matter designated by the school system for the various grade levels. This seems reasonable because:

1. These were normal children in a public school situation.

2. This public school is typical of other public schools in physical plant, classroom enrollment, and curriculum requirements.

3. The fact that the study covered a four-year period indicates that any unusual condition which might have prevailed at any given time was smoothed out.

4. The regular school work was carried on in accordance with the prescribed course of study for the state.

5. No special conditions were set up for the study nor were any special requirements made of the teachers.

6. The selection of teacher participants in the study was on a voluntary basis so that no selective factor operated except individual interest.

The acceptance of the assumption that the findings of this study have applicability to other situations involving the teaching of English to non-English speaking children, carries implications of far-reaching significance as indicated by facts such as the following:

> New York City schools face the task of teaching English to thousands of Puerto Rican children with the number increasing yearly.
>
> In Texas, the problem of Spanish speaking children in the first year of school is such that a summer school program for non-English speaking children about to begin school is legislatively approved. This is to obviate the necessity for the first school year to be spent largely in learning English rather than in regular first grade work. Even though during 1960, approximately 15,500 children were enrolled with an increase the following year, the special training is still said not to be sufficient to reach the majority of the children needing it.
>
> Maine teaches English as a second language to thousands of Franco-American children. In some communities the percentage of French speaking people totals as high as 90%.
>
> Dade County, Florida, is faced with an influx of Spanish speaking children from Cuba and elsewhere.
>
> An estimated 108,000 Indians live in non-English speaking homes. For these children, as for those in the Ganado School, their first year of school is of necessity, largely given to the learning to use English which is basic to all of their school work.

The above sampling serves only to suggest the magnitude of the problem in the United States of teaching English to the children who begin school with little or no command of the language. Anything which facilitates that learning is a contribution to all of their later school work. The study carried on in the Ganado School, indicates clearly that toys can properly be looked upon as a highly useful means not only for helping them to learn a new language, but likewise as a means for acquainting them with the culture which it is necessary that they understand, if the language is to have meaning to them.

This is especially evident when one realizes that toys represent the culture in which they are produced as truly as does the language which is the expression of that culture. Therefore, wherever the learning of English as a new language is the purpose to be accomplished, their toys as a representation of the culture, can properly be looked upon as useful in learning the language.

There are further implications which present themselves. One of these is the purpose which toys used at school may serve in taking the children's learning of English in school and the culture it represents into their homes. This was barely touched upon in the toy loan phase of the present study. The possibilities of acculteration thus served, are probably considerable. It is conceivable that toys so taken into the homes might serve as a link between home and school and bring to the parents, learnings which they cannot go to school to get.

Still further, there are throughout the world, many primitive countries whose people are reaching out for a different way of life, people whose native culture is being modified by contact with another culture, people who must learn the language of the different culture either for reasons of economic adjustment, to raise the standards of living, or for purposes of participation in newly-come industries or other means of employment.

Just as toys have been useful in aiding Navajo children to learn a second language and the culture it represents, so it is reasonable to suppose that they may be similarly useful in working with primitive groups in other countries. This opens up a wide vista of possibilities not only in the use of toys as aids in the children's learnings, but as aids in adult learnings. It is not outside the realm of possibility that they might profitably be teaching tools to be used by Peace Corps workers, and therefore as tools in their own training.

The findings of the study suggest many avenues for further exploration and study, e.g.:

1. Through what teaching methods can the toys be used most effectively?

   The teachers sought continuously for such methods. Only a beginning was made in discovering the ways of using them for optimum effectiveness.

   A study based on such a question contributes to effective teaching even as it progresses.

2. How can toys be used to acquaint children with a culture different from their own?

   Only the surface was scratched in arriving at any answer to this question. The study did point significantly to the possibility of such usefulness.

3. In what ways can the use of toys further the basic purposes of stimulating and fostering a love of learning?

   The enjoyment of school was one of the by-products which the participating teachers mentioned as a valuable outcome. It is one not to be minimized as one thinks of the difficulties confronting children to whom English is a foreign language.

4. To what degree does the use of toys decrease the percentage of retention in the first grade of school?

   This would necessitate the setting up of control groups and the defining in agreed upon detail of the standard for promotion. The teachers in the present study were of the considered opinion that the necessity for thoughtfully assessing individual characteristic, attitudes, conditions, exceeded in importance any information which might be gained from a more formalized procedure.

5. What, if any, tests using the toys might be devised for assessing their effectiveness in subject matter teaching?

   Some tentative efforts were made in this direction as reported, and it is felt that useful possibilities lie in further study along this line.

As the study progressed, the question became more and more insistent in thought, What would be the effect on later school learning if these children could be brought together in groups at four, perhaps at three, not for regular school work, but for play together under skillful guidance and for the sole purpose of becoming familiar with English and with the white man's cultural customs and ways? Speech patterns are formed very early and by the time a child comes to school at five, they are well set and much relearning must be done as indicated by some of the difficulties cited throughout this report. Might it be that with earlier experience with English, the learning would be facilitated? It would be an interesting and probably a useful experiment to establish one pilot group and study the results.

It had been hoped at the beginning of the study to take toys into the homes of the children. The toy loan which was briefly experimented with was a first step in this direction. It soon became apparent that it was wisdom to concentrate on the use of the toys in the immediate school set up without diffusing energy, thought, and effort in undertaking the study of the usefulness of the toys in the home situation. This remains to be done. The reaction of the parents in the instances where toys were loaned, indicates that it is a fruitful area for exploration. It had also been hoped to take toys into the hospital situation, but for the same reason, this was not explored. It would have been practical to do since the hospital on the mission grounds is closely adjacent to the school and the children who need treatment are patients there. This too, remains to be done.

There lies at hand, another and fruitful area for study on the Reservation. This is a study of the part toys might play in the adjustments in living which are imminent for those of all ages. With the coming of electric power to the Reservation, the old order of living is changing. The changes are coming rapidly. The adjustments will be many and drastic. The impact of the white man's culture is at once challenging, confusing, baffling. Can toys in the hands of the children at home help?

Finally, as teachers and school administrators in other situations consider the use of toys as teaching material questions will arise as to their selection. In the present study, the toys were provided on an unselected basis, except for the broad guiding generalizations indicated in the memorandum to the manufacturers.

(See Appendix, Exhibit 3). This was wholly practical in this situation since the purpose was to assess the usefulness of the toys and if pre-selection had been made, it would have automatically circumscribed the study.

The procedure followed here would be impractical in a situation where the purpose is to use the toys, not for study purposes, but directly as teaching tools.

It is notable that the toys used represented the whole broad range of toys available. The choice was not confined to those commonly thought of as "educational toys" nor to those designed especially for school use. While the manufacturers did send some of these, they by no means confined themselves to them. Toys of all kinds and descriptions were sent and were adapted to teaching purposes.

There will doubtless be readers who will wish that the teachers had given among their findings, a list of the toys they found most useful. Such a list would not long be current, since the production of toys changes rapidly. Mention has been made throughout the reports of different types of toys which were used again and again. However, as in all teaching, individual preferences and individual ways of teaching play a part in any selection. What one finds highly useful, another may not, such are the differences in teaching.

Further, it must be remembered that the purpose of this study was to assess the usefulness of toys in general in the teaching of English to non-English speaking children and not the selection of specific toys. The latter is another study entirely.

The curriculum one is following, the experiences which the children need to understand the language they are learning, and the teacher's individual ways of teaching are inevitably the basic guides to selection in any given school. It devolves upon those who would use toys for teaching, to search the market, to follow the toy industry's trade journals, to make inquiry of persons in touch with manufacturers. Professional organizations serving teachers such as The Association for Childhood Education International, frequently publish useful guides on school equipment and materials and include toys. The American Toy Institute has helpful material giving developmental guides for selections fitting different ages.

The significant and overall finding of this study is the conclusion that toys are eminently useful as teaching tools in the teaching of English to non-English speaking children. It remains for teachers who have this responsibility, to consider toys as a means of carrying it out in conjunction with other teaching tools.

APPENDIX

APPENDIX, EXHIBIT 1.

October 7, 1959

MEMORANDUM
TO: MR. CHARLES S. RAIZEN, CHAIRMAN
AMERICAN TOY INSTITUTE COMMITTEE FOR
TOY MANUFACTURERS OF U.S.A., INC.
FROM: DR. GRACE LANGDON

RE: NAVAJO TOY STUDY

I arrived in Tempe, Arizona, on the evening of September 24. The next day was spent at the University working on plans with Dr. Stout, Dean of the Graduate College, for our toy study on the Navajo Reservation.

During the day there was an interview with a reporter from The Arizona Republic which had been arranged by the Public Relations Department of the University. This did not appear in the paper until I had left, but copies are being sent. There was particular interest in the study because of its focus on the use of toys in teaching English to non-English speaking children. This is a major problem in the southwest as it is now in many sections of the United States.

On Monday, September 28, we drove to the Reservations returning on the 30th. The following day was spent at the University completing plans in light of development on the trip. It is a three-hundred-mile drive to the portion of the Reservation where we will be working. It is through mountainous and desert country, through the Painted Desert and the Petrified Forest. We came to no villages after entering the Reservation, until we reached Ganado, where our study will go on.

The Navajos are sheep raising people and all the way along one saw great flocks of sheep grazing on the desert, with an Indian woman or girl herding them. The hogans in which the Navajos live, are scattered here and there, far apart, and hardly distinguishable against the hillsides. They are one-room adobe huts with fire pit in the center. The family live in this one room sleeping on sheepskins. I am told that the home life is delightful. There is a warm, close family relationship. They say that rarely is there any trouble with children traceable to the home. They are intensely interested in education for their children and the children are eager to learn.

The public school at Ganado where we will do our study, is one of five such schools on the Reservation. It is as modern a school building as one could find anywhere. It covers first grade to eighth. There are no publicly supported kindergartens in Arizona, so the children enter in first grade.

These children come in speaking no English. Many must take two years for first grade. The matter of building up an English vocabulary goes on in every grade of the school. Further, and even more important, is the matter of building up an understanding of what the words mean and of our way of life.

Here in the school, one sees the meeting of two cultures. The Navajos are people given to deep meditation. They set great store by education. They are skilled craftsmen in silver work and weaving, in drawing and painting. They are deeply religious in their own way. In short, they have an age-old culture of their own and now the children must learn ours which is very foreign to them. This means that in all grades of the school, the learning of English meanings has to go on with a continuous interpretation of our way of living. Here is where our toys can serve a purpose that will, I believe, be broader than anything we may think now.

The Superintendent and teachers caught this at once. The plans had been made for one of the first grade teachers to carry on the study as part of her graduate work at the University. Almost immediately, however, the Superintendent said he felt other teachers would want to work with her.

Accordingly, he called a full staff meeting, asking me to tell them about the study to see how they would feel about it. All of them want to be a part of it. One of the fifth grade teachers said that if only she could have boats and toys having to do with water, maybe she could help the children understand better about water transportation. This is outside their experience and toys will help to give meaning to words otherwise only words to them.

The science teacher said he could see that science toys would help the children get concepts which he has been struggling to get across to them. All of the teachers said that anything that has to do with home living, even the simplest kind of housekeeping equipment would help to bridge the gap from the one culture to the other. There is no electricity in the homes, so electrical appliances and their use are unknown except as they see them at school. The same with telephones.

All of the teachers emphasized the need for teaching about health care and sanitation. All of the water used in the hogans must be hauled long distances, sometimes as much as twenty miles. Our means of bathing, household cleaning and toilet facilities are part of their living only at school.

Another first grade teacher arranged with Dr. Stout to work on the study for graduate credit so she and the one who had already planned to do the study will take the leadership in it with all the other teachers, about twenty-five in number, working with them. The toys will be used in all grades.

Mrs. Spining, the second teacher to work for graduate credit, is the wife of the Medical Director of the Hospital on the Mission grounds adjoining the school grounds. He and Mrs. Spining have been there some twenty-five years. They have access to the hogans and have an intimate knowledge of the Navajos ways of living. It will be of great help to us to have them working with us.

Dr. Spining asked if we would be interested in carrying the study into the Hospital. Many of the children are in the hospital for long periods for chronic ailments. He has student nurses in training. It will be an excellent opportunity for us. Furthermore, once a week, the women come in from the hogans to sew under the guidance of the wife of the Superintendent of the Mission. They bring their younger children. It was suggested that the study be extended to them and this will give us the opportunity I have hoped for of taking some of the toys into the hogans.

All told, the interest and enthusiasm of the Superintendent of Schools and his staff have made it possible for us to carry on a much broader study than was first planned.

We have here on the Reservation, the kind of research opportunity that one working in research wishes for and seldom has. It is a group of perfectly normal children in a setting free from the outside distractions that so often make it difficult to pin down the findings of a study.

Dr. Stout has worked carefully and understandingly with the Navajos and they have great confidence in him. They have confidence in us because he has brought us there. This was very evident in the half hour conversation he and I had with the Chairman of the Education Committee of the Tribal Council. This young man is a Navajo, highly educated, world traveled and working here among his own people. He is very interested in the study.

I feel that we have here an opportunity for a very unique, useful and interesting study. Everyone is interested in working with us. I only wish I could get into words some of their enthusiasm and interest and some of my own feeling of significance of the opportunity we have had given to us.

APPENDIX, EXHIBIT 2.

September 25, 1959

MEMORANDUM:
TO: WALTER S. CARPENTER
FROM: DR. GRACE LANGDON
CHILD DEVELOPMENT ADVISER, AMERICAN TOY INSTITUTE

RE: TOY STUDY ON NAVAJO INDIAN RESERVATION

Our usual procedure for providing toys for research studies in which we participate is to offer all toy manufacturers who are members of the Toy Manufacturers of the U.S.A., Inc. an opportunity to send such toys as they wish directly to the place where the study will be carried on. A memo will be sent to them immediately following my visit to Arizona. In this they will be told of the general nature of the study and given the date on and after which toys should be sent.

We can expect a prompt and generous response from a considerable number of manufacturers. There will be many toys arriving at once and others coming along for several weeks following the specified date. They should arrive prepaid. This will be specified in our memo. In most instances, you will receive a letter from the manufacturer or person on his staff to whom he has referred the matter, expressing interest and advising what toys they are sending. An invoice may come with the letter, or with the package, or not at all.

I am offering below some suggestions on the mechanics of handling the shipments received which we have found from experience will save time and avoid later confusion:

1. Prepare a master index sheet with spaces for (a) Index number (b) Manufacturer's name and address (c) Date toys are received (d) Toys included in the shipment.
2. Before a box is opened, put an index number on it and enter it with the manufacturer's name and address on the index sheet.
3. When the box is opened, put the index number immediately on each toy. This is most important because some toys do not carry the manufacturer's name and if they get mixed up it is time consuming to identify them. If a manufacturer sends several different toys they can be numbered consecutively 1a, 1b, 1c, etc.
4. Enter the name of toys received from a given manufacturer on the index sheet, showing the quantity of each.

Illustration of how this works out: Suppose your first shipment is from Fisher-Price Toys, Inc. You would number the box as 1. You would enter it on the index sheet, thus 1, Fisher-Price Toys, Inc. From then on 1 would always indicate Fisher-Price Toys, Inc. Open the box. Number each toy as taken out 1a, 1b, 1c, etc. Enter on the index sheet. The next box from another manufacturer would be 2, and so on.

We will appreciate it if you will make acknowledgment to the individual manufacturers. In doing this, if you can conveniently do so, will you please have a carbon made for me. I would be glad if these carbons can be sent to me about every two weeks or each week if convenient. I keep a chart here of the manufacturers who respond and I make acknowledgment from here also.

We do appreciate your interest in working on this study and we want to be of all the help we can at any time.

APPENDIX, EXHIBIT 3.

AMERICAN TOY INSTITUTE · RESEARCH DIVISION
Toy Manufacturers of the U.S.A. Inc.
200 Fifth Avenue, New York 10, N.Y. Telephone: ORegon 5-1141

October 27, 1959

Memorandum
To: All Members
From: Grace Langdon, Child Development Adviser

Plans have just been completed for a new research study. This will be our first study in the far west. It will be in cooperation with Arizona State University at Tempe and directly under the supervision of the Dean of the Graduate College.

We have long wished for an opportunity to work in the west and to have a study under the auspices of a University. Now we have both. Equally gratifying is the fact that details have been worked out by the University so that it will be done in a public school on the Navajo Indian Reservation.

The study will be on THE USE OF TOYS IN TEACHING ENGLISH TO NON-ENGLISH SPEAKING CHILDREN. We could hardly find a more advantageous place to do it. Nearly ninety-five percent of the children do not speak English on entering school. Even when they learn the English words it is necessary for them to learn the meanings of the words as used in our culture. This means that the children in upper grades are still struggling with trying to understand words that denote experiences in a culture very different than their own, experiences which they know little or nothing about.

We ask your cooperation in sending toys for the study. The response to our requests for toys for previous studies has been very generous. We are especially hopeful for an even greater variety of toys with which to work in this one.

In asking us to undertake the study, the Dean of the Graduate College of Arizona State University pointed out that findings from it will be useful to a wide variety of persons throughout the country. It will give pointers to any persons concerned with teaching English to those who do not speak it. It will be equally significant to those who are teaching another language to our English-speaking children.

Both Mr. Raizen, Chairman of the Board Committee for the American Toy Institute and our Advisory Committee have given their hearty approval to the study.

In late September, I spent a week in Arizona at the University and on the Reservation working out details for the study. I wish I could convey to you the interest and enthusiasm of the Superintendent and teacher. All teachers will work on it from grades one through eight. I had opportunity to talk also with the Education Chairman of the Navajo Tribal Council and he, too, is deeply interested.

In addition to working in the public school, we will also work in the nearby hospital. We hope further to take toys into the hogans of the Navajo people to find out how they will be used in home living.

I asked the Superintendent and teachers to tell me the types of toys they felt might be most useful. Following is what they said:

1. Any toy that will give an idea of our ways of home living, of cooking, eating, sleeping, cleaning, laundering, furnishing our homes, etc.
2. Anything that will give understanding of community living and community services, e.g. village sets, farm sets, street accessories, traffic games, etc. Villages are few. There is no electicity in the hogans, no telephones.
3. Anything that will help to build concepts of communication, means of transportation, construction of buildings. Few have had experiences with boats or airplanes.
4. Anything that will help to build concepts of health-care and sanitation. All water has to be hauled often twenty miles or more.
5. Toys that will give ideas of geography, history, science, etc., to broaden their concept of the world lying beyond the Reservation.
6. Musical toys, games of all kinds, anything for creative hand skills, anything likely to stimulate conversation through social activity.

It all adds up to the fact that almost any type of toy will be useful. The school has bought toys from time to time but the Superintendent says they have little way of knowing what is available. He hopes that findings from the study will aid them in later purchases.

It will be gratifying if we can have toys from many manufacturers. I hope you will send anything that you feel might be useful in helping us to do a study having real significance.

Toys should be sent, PREPAID, addressed to:

Mr. Walter Carpenter
Supt. Ganado Elementary School
District 19
Ganado, Arizona

They may be sent by Parcel Post, Railway Express or Motor Freight. Please send them anytime after receiving this memorandum.

I will appreciate it if you will let me know when you have sent toys. And, I surely will appreciate your interest.

APPENDIX, EXHIBIT 4.

Toys received for the Toy Study at Ganado Public Schools, Ganado, Arizona, November 2, 1959 to January 1963. The numbers before the toys identify the contributing manufacturers as keyed to the list in Exhibit 5.

LANGUAGE ARTS

42.	Alphabet Blocks
21,19.	30 Primary Books
29.	Magnetic Alphabet Board
34.	Alphabet Picture Flash Cards
34.	Link Letters
42.	2 Presto Magic Speller
42.	2 Letter Blocks
3a, 46.	Picture Dominoes
3a, 3.	Lotto Games
3.	Color Bingo
48.	Jr. Executive Typewriter
32.	Tumble Words
53.	Picture Word Association
3a.	Book of Knowledge Flash Cards
46.	Flash Cards
46.	3 Boxes Play Letters
34.	Word and Sentence Builder
34.	Global Flash Cards
34.	Flash Words
34.	Picture Words
55.	9 doz. School Slates
55.	9 doz. Small Erasers
55.	200 Slate Pencils
54.	2 T.V. Viewers and 11 Albums
29.	Sammy Sun Puzzle
29.	Old Woman in Shoe

ARITHMETIC TOYS

9.	Jolly Jingles Number Cards
39,16,29.	3 sets Wooden Dominoes
29.	Sifo Kinder Dominoes
46.	2 Division Flash Cards
46.	2 Addition " "
46.	2 Subtraction Flash Cards
66.	Toy Money
16,66.	3 Cash Registers
56.	3 doz. Banks
34.	Understanding Numbers
29.	Color Wheel Clock

SOCIAL STUDIES

44.	2 Ranch House Phones
11.	Coco Cola & Soda Pop Fountain
18.	Post Station
27.	Plastic Milk Bottles
29.	Kinder City
38,2.	7 Farm Sets
2.	Knights & Riders
2.	Soldier Set with Tanks
2.	Air Force & Navy Men
60.	Dr. Seuss 300
60.	Lawn Mower
60.	Rabbit Bank
67.	Intercom Telephone Set
46,29.	6 U.S. Maps
65.	2 Smokey The Bear
9.	States and Cities Game
9.	Quick Wit
29.	Wooden Milk Carrier
45.	Corner Store
45.	Super Market
9.	Wide World Game
9.	Across the Continent Game
20,34.	6 U.S. Geography Games
31.	5 Sets Peanuts Characters
34.	Map and World Puzzle
34.	U.S. Lotto
44.	2 Dial Telephone
64.	Model Farm Machinery:
64.	Tractor
64.	Wagon
64.	Spreader
64.	Plow
64.	Disc Harrow
64.	Combine
64.	Hay Loader
64.	Grain Drill
64.	Elevator
64.	Corn Picker
64.	Disc Harrow
64.	Flat Bed
57.	Miniature Cars, trucks, and Road Signs
3a.	20 Card Games

SCIENCE

71.	Willy the Weatherman
60.	Physics Lab
60.	Chol' test
60,73.	2 Microscopes
60.	Chemcraft
60.	Radio Kit
60.	Parachute Rocket
73.	Telescope
72.	2 Doctor Kits
70.	Adventure Kits of Rocks, Seashells, Human Biology, Underwater Life, Weather and Astronomy.
40.	14 doz. Rubber Crayfish
43.	Telephone, Telegraph, Telescope, Electric Lamp, Steam Turbine, and Printing Press Kits, 2 doz. Rockets

MUSICAL TOYS

16.	Musical Chimes
6.	8 doz. Whistling Tops
25.	Electric Viliraphone'
59.	3 doz. Music Maker Books
59.	2 doz. Mattel A Time Books
5.	2 Swing a tune
5.	2 Keymonicas
5.	2 Horns
16.	T.V. Radio
60.	Electric Organ
60.	Record Player and Recorder

ARTS, CRAFTS, & HOBBIES

9.	Finger Paint Set
9.	Embroidery Set
9.	Animal Sewing Cards
10.	Racer Kits
10.	6 Air Boat Kits
10.	6 Hot Rod Kits
10.	12 Speed Boat Kits
3.	Mosaic Art Kit
	Stencil Art Books
	Carpenter Kit
28.	Magic Doh
32.	Doll Craft Set
60.	Play Doh
60.	Numbered Oil Paint Set
60.	Mosaic Art Kit

PUPPETS, DRAMA, ETC.

8.	2 Sets Large Cardboard Animals, 8 Bill Ding Clowns
23.	2 Sets 3 Bears Puppets
35.	Mother Goose Pin-ups
60.	Clown
60.	Roy Rogers Costume
60.	3 Stooges
52.	34 Hand Puppets
52.	3 String Puppets
40.	4 Santa Clauses
45.	2 Puppet Theaters

HOUSEKEEPING TOYS

14.	Aluminum Dishes
16.	Lunch Box and Thermos
29.	Wooden Iron
34.	Magnetic Mary Jane Doll
36.	2 doz. Kiddy Cook Sets
36,38.	18 Tea Sets
44.	2 Musical Cradles
44.	4 Doll Bunk Beds
44,31,40.	Small Rubber Dolls
40.	4 Hostess Sets
60.	6 Sewing Machine Sets
60.	3 Slender Dolls
60.	Large Rubber Doll
60.	Doll Blanket
60.	Carpet Sweeper
60.	Raggedy Ann Doll
68.	3 Large Teddy Bears
63.	Doll Carriage
63.	2 Sets Tables and Chairs
58.	6 Toy Brooms
50.	5 Ironing Boards
50.	3 Electric Stoves
50.	Pots and Pans
50.	5 Irons
50.	1 Electric Corn Popper
8.	Dollhouse and Furniture
45	Cardboard Sink, Refrigerator, and Range

TRANSPORTATION

43.	2 Electric Trains
60.	Helicopter
60,29.	Jet Planes
60.	Hot Rod
40,25.	3 doz. Boats
25.	Hydroplane

APPENDIX, EXHIBIT 5

Alphabetical list of manufacturers providing toys for the study from November 2, 1959 to January 1st, 1963, numbered in order in which toys were received and keyed by number to the classified list of toys in Exhibit 4.

73. A.C. Gilbert Company
New Haven 6, Conn.

60. *American Toy Institute
200 5th Avenue
New York 10, New York

36. Aluminum Specialty Company
Manitowoc, Wisconsin

38. Auburn Rubber Company
725 West Eleventh Street
Auburn, Indiana

67. Aurora Plastics Company
44 Cherry Valley Road
West Hempstead
Long Island, New York

48. Berwin Corp.
345 Carnegie Avenue
Kenilworth, New Jersey

39. Blockraft, Inc.
Cedar Springs, Michigan

4. Brrr Products Company
Hasbrouck Heights, New Jersey

20. Cadaco-Ellis, Inc.
911 West Jackson Blvd.
Chicago 7, Illinois

70. Capital Pub. Company
215 East 22 Street
New York 10, N.Y.

64. Carter Tru-Scale Machine Co.
Rockford, Illinois.

28. Climax Industries
7275 Neville Avenue
Cleveland 2, Ohio

62. Delphos Bending Co.
901 S. Main Street
Delphos, Ohio

57. Dowst Manufacturing Co.
600 N. Pulaski Road
Chicago 24, Illinois

35. The Dolly Toy Co.
Tipp City, Ohio

7. Eagle Rubber Co., Inc.
710 Orange Street
Ashland, Ohio

3a. Ed-U-Cards Mufacturing Co.
36-46 33rd St.
Long Island City 6, New York

3. Educational Cards Inc.
1302 Industrial Bldg.
Detroit 26, Michigan

46. E.E. Fairchild Corporation
P.O. Box 371
Rochester 2, New York

Eldon Industries Inc.
1475 E. El Segundo Blvd.
Hawthorne, California

24. Eldon Manufacturing Co.
1010 E. 62nd Street
Los Angeles 1, California

27. Empire Plastic
14 Pelham Parkway
Pelham Manor, New York

16. Fisher Price Toys Inc.
East Aurora
Erie County, New York

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*(While not a manufacturer, the Institute arranged for certain toys to be sent when special request was made and it was not always possible to identify the manufacturer hence all so provided are keyed to the Institute.)

64. Carter Tru-Scale Machine Co.
Rockford, Illinois

61. Garton
Sheboygan, Wisconsin

68. Gund Manufacturing Co.
40 W. 20th Street
New York 11, N.Y.

6. The Gibbs Manufacturing Co.
Canton 2, Ohio

44. Gong Bell Manufacturing Co.
East Hampton, Connecticut

17. Grey Iron Casting Co.
Mount Joy, Pennsylvania

52. Hazelle Inc.
1224 Admiral Blvd.
Kansas City 6, Missouri

15. Halsam Toys
3610 Touhy Avenue
Chicago 45, Illinois

21. Hampton Pub. Co. Inc.
711 S. Dearborn Street
Chicago 2, Illinois

63. Hedstrom
Dothan, Alabama

1. Highlander Sales Co. Inc.
650 Ottowa Ave. North
Minneapolis 22, Minnesota

31. Hungerford Plastics Co.
Morristown, New Jersey

65. Ideal Toy Corp.
18410 Jamaica Ave.
Hollis 23, New York

40. Irwin Corp.
Nashua, New Hampshire

53. Jacmar Manufacturing Co.
70 Berry Street
Brooklyn 11, New York

69. Kenner Products Company
912 Sycamore Street
Cincinnati 2, Ohio

25. Knickerbocker Plastics
11501 Hart Street
North Hollywood, California

32. Kohner Bros.
155-157 Wooster Street
New York 12, N. Y.

43. Lionel Corporation
15 East 26 Street
New York 10, New York

50. Mangold Toy Co. Inc.
Box 218
Granbury, Texas

59. Mattel Inc.
5432 West 102 St.
Los Angeles 45, California

56. Merry Manufacturing Co.
531 North Wayne Ave.
Cincinnati 15, Ohio

50. Metal Ware Corp.
Two Rivers, Wisconsin

34. Milton Bradley Co.
Springfield, Massachusetts

14. Mirro Aluminum Company
Manitowoc, Wisconsin

55. National School Slate Co.
7th & Church Street
Slatington, Pennsylvania

26. North Western Products Co.
St. Louis, Missouri

22. Park Plastics Co.
Linden, New Jersey

9. Parker Bros. Co.
Salem, Mass.

18. Playskool
1750 N. Lawndale Avenue
Chicago 47, Illinois

5. Proll Toy Co. Inc.
100 Verona Avenue
Newark 4, New Jersey

GAMES

1.	6 Boxes Giant Cootie
9.	1 doz. Word Rummy, Winnie the Pooh
9.	2 Monopoly
9.	The Children's Hour
9.	Sorry
9.	Fun Cards
12.	3 Qubic
12.	2 Jack Straws
	Peg Board
26.	Checkers
46.	Dominoes
37.	Skindiving, remote Control
37.	Wild West Roundup
34.	Candy Land
53.	2 doz. Electric Quiz Games
34.	Pirate and Traveler
26.	Slugger Baseball
22.	Target Game
9.	World Flag Game
9.	Key Word
9.	Going to Jerusalem
9.	State Capitals
23.	Cone Pop Game
34.	Pack-o-Game
34.	Concentration
60.	Continental
60.	True Talent
60.	Sports Arena
36.	6 Bat-a-Ball
46.	6 Authors
46.	8 Old Maid
46.	3 Sport-a-Plate
46.	6 Peter Rabbit Rummy
46.	6 Pin Tail-on-Donkey

PUT TOGETHER TOYS

1.	12 boxes Snap-eze
13.	Mod-1-stix
15.	American Logs
15.	American Plastic Bricks
15.	American Sky Line
37.	Plastic Links
37.	Plastic Daisy Snaps
30.	12 Boxes Tinkertoys
16,18.	Large Wooden Blocks
29.	2 doz. Wooden Sifo Puzzles
18.	4 doz. Cardboard Puzzles
32.	Bolts and Nuts Set

PUT TOGETHER TOYS (Continued)

34.	Link Numbers
44.	9 Wooden Block Puzzles
	Snap-n-play
69.	4 Bridge & Turnpike Building Sets
69.	4 Girder & Panel Building Sets
26.	Carpenter Kit
29.	Beads to String
45.	1 Set Little Red Schoolhouse Blocks
45.	Cardboard Building Blocks
	Goofy Gears
39.	Construction Blocks
60.	2 Rainbow Stocks
32.	Stacks Builder
32.	Loony Links
32.	T.V. Blocks
60.	Snap Beads
60.	Panel Building Set
46.	Jig Saw Puzzle

OUTDOOR TOYS

7.	1 doz. Fireglo Balls
27.	Basket Catch
27.	6 Plastic Balls & Bats
27.	5 Plastic Bowling Sets
27.	6 Flying Saucers
27.	3 Bottle Games
27.	3 Paddle Tennis
38.	Rubber Quoits
40,29.	2 Pr. Plastic Roller Skates
40.	4 Footballs
62.	Merry-go-round
51.	3 Wonder Horses
51.	Saddle
63.	Tricycle
27.	3 Badminton Sets
61.	Pedal Drive Auto
40.	2 Racers
49.	2 Wagons
49.	4 Scooters
49.	Garden Cart
47.	3 doz. Spin-a-plate
40.	Horseshoe set
40.	6 doz. Small Plastic Balls
58.	30 Stick Horses
59,60.	5 doz. guns
22.	9 doz. Klippity Klop Spurs

MISCELLANEOUS TOYS

17.	7 doz. sets Jacks & Balls
60,16,29.	2 doz. Pull Toys
38.	Small Trucks, Tractors, Fire Engines, Boats, Busses & Airplanes
24.	16,40,25,18,29,8,33
41.	Inflatable Horses
40.	Rubber Squeaking Toys
60.	Balloons
60.	Jack-in-the-box
	6 doz. Dolly Nail Sets
29.	Coordination Wagon
29.	Rainbow Stacking Cart
29.	Kiddy Carry Cage
29.	Coordination Board

12. Qubic Games
54 Warner Street
Springfield 8, Massachusetts

49. Radio Steel & Mfg. Co.
6515 W. Grand Avenue
Chicago, Illinois

54. Sawyers Inc.
P.O. Box 123
Portland 7, Oregon

42. Shepherd Toys
Medina, Ohio

37. Sidney A. Tarson Co.
712 N. Franklin Street
Chicago 10, Illinois

29. Sifo
353 Rosabel Street
St. Paul 1, Minnesota

71. Standard Toycraft
95 Lorimer Street
Brooklyn 6, New York

19. Stencil-Art Publ. Co.
Box 23
Bedford, Ohio

8. Strombeck-Becker Mfg. Co.
Moline, Illinois

47. Stuart Mfg. Co.
337 W. 35th Street
Cincinnati 2, Ohio

2. Tim Mee Toys Inc.
Aurora, Illinois

33. Tonka Toys, Inc.
Mound, Minnesota

76. Transogram Corp.
Easton, Pennsylvania

30. The Toy Tinkers
Evanston, Illinois

45. Toymaster Products Co. Inc.
100 8th Street
Passaic, New Jersey

11. Trim Molded Products Co. Inc.
Route 5, Box 65 A.
Burlington, Wisconsin

10. Ungar Electric Tool Co. Inc.
Los Angeles 66, California

41. Urb Products
55 Meadow Street
Brooklyn 6, New York

13. The Vogel Mfg. Co.
Bridgeport 1, Connecticut

66. Western Stamping Co.
2203 W. Michigan Ave.
Jackson, Michigan

23. Wilkening Mfg. Co.
2007 S. 71st Street
Philadelphia, Penna.

51. Wonder Products
Collierville, Tenn.

*Numbers indicate the order in which manufacturers provided toys and are keyed to the classified list of toys in Exhibit 4.

APPENDIX, EXHIBIT 6.

Ganado Elementary School
Ganado, Arizona
May 24, 1960

Toy Manufacturers of America

Gentlemen:

As recipients of the toys supplied by your several firms, the three teachers whose names you see below wish to express appreciation for your generous participation in this unique program. At the conclusion of the first year of this study, we have each outlined some of the observations on the use of the toys with our particular group, and recorded a few of the outcomes we believe would be of interest to you.

Miss Sarah Yoder, first grade teacher in Room 4, says: "Toys have changed the atmosphere of our room and playground. The children would fairly burst with enthusiasm as each new shipment came in. We would talk about each toy first: What is this? What can you do with it? How shall we take care of it? Is it just for the children in Room 4, or is it for other children too? Then they were allowed to play.

The children took great pride in caring for the toys, taking them home for overnight use and sharing with their younger brothers and sisters. In the morning as they came in, I talked with each child, asking him how he played at home. They would report what the little pre-school child at home had said, in English.

It was of particular interest to note the stages of play develop from the manipulative to creative. Even 7 and 8 year olds enjoyed push and pull type toys for quite a while. At first, trucks and cars were used only for driving around the room. Before long, however, they became moving vans, lumber trucks and means of creative projects.

The children spent quite a number of language periods writing letters to the toy manufacturers. They developed skills in handwriting, spelling, and sentence structure. The latter is the most difficult for the Navajo child, who must learn a new language when he comes to school.

Already, I can see many areas of exploration for next year. We now have two large, well stocked cupboards and each unit of study will have some toys to clarify meanings, provide enriched experiences, develop language, and give just plain fun."

Mrs. Dorothy Vann says: "In the beginner's Room 1, consisting of 22 non-English speaking Navajo children, the children were introduced to each toy in this manner. Every new toy was exhibited before the whole class and they were asked to give the English name. Sometimes they knew it, but more often they didn't. Each child was allowed to try the toy and comments in Navajo and English were noted by the teacher. Then we developed an experience chart telling how we used the toy. These charts were then used as reading and language lessons. Each chart lesson was reproduced by ditto machine and the children drew a picture of the toy. We had 21 such reading lessons for our booklets.

Children were permitted to borrow the toys overnight. Follow-up visits to the homes were made and note taken of what toys, if any, the child had. In most instances there were none.

I feel that the toys presented by the Toy Manufacturer's Association were of the utmost value in arousing and keeping high the interest of the children, and made possible a higher rate of learning English. With toys to manipulate and learn with, the retention rate has been much higher."

Mrs. Eleanor Spining, teacher of the beginners in Room 2 comments: "Working with the toys so generously provided by the toy manufacturers, I have found valuable in many ways. My group of Navajo children gathered from the surrounding community ranged in ages from 5 to 7 at the beginning of the year. For practically all of the group, this was their first year in school, and most knew almost no English.

At first, I followed the procedure of putting out the new toy with little or no comment and observed the reaction of the children. In all cases, discovery was immediate and joyous. Familiar objects such as cars, trucks, some household toys and the like were put to immediate use and required little suggestion on my part. Creativity in the use of the toy increased with the developing maturity of the child, and in some cases, suggestions and demonstrations of the teacher were followed. With the purpose uppermost, that of using the toys to help teach English, care was used in talking with the children as to what the toy is, how it can be used, care in playing with it, ways of sharing, etc. Many toys were entirely new and unfamiliar to many children. This necessitated more careful explanation and even motivation, the teacher playing with the toys to stimulate imitation. The variety of play was interesting. Horses being close to Navajo life, the stick horses were immensely popular. Riding was vigorously enjoyed, jump ropes were used as lassos (in moderation, I might add!) and the horses were fed and watered and rested at the proper intervals.

Building roads with blocks provided opportunity for calling attention to the need for safety, right-left traffic, "stop" and "go", and other rules of the road. More creative play with the trucks and cars developed. The household furniture was a never ending source of interest to both girls and boys and gave many opportunities for teaching cleanliness and care.

Near the end of the year we three teachers and our pupils gave a Toy Parade and Toy Program for all primary grades in the school. We used every variety of toy with great success, and all the children enjoyed it immensely.

All of the above lead directly into a more meaningful content to the beginning reading program in all of its aspects."

Sincerely,

Eleanor Spining
Mrs. Eleanor Spining

Sarah Yoder
Miss Sarah Yoder

Mrs Dorothy Vann
Mrs. Dorothy Vann

George E. Burns
Mr. George E. Burns, Principal